DOCUMENT RESUME

ED 024 656 SP 001 978

By- Miller, Richard I.

Education in a Changing Society.

National Education Association, Washington, D.C. Project on the Instructional Program of the Public Schools.

Spons Agency- National Education Association, Washington, D.C. Project on the Instructional Program of the Public Schools.

Pub Date 63

Note- 169p.

Available from- Nat. Educ. Assn., 1201 16th St., N.W., Washington, D.C. 20036 (cloth, $2.75; paper, $1.75).

EDRS Price MF-$0.75 HC Not Available from EDRS.

Descriptors- Bureaucracy, Economic Progress, *Educational Improvement, *Educational Problems, *Educational Quality, Educational Television, *Educational Trends, Foreign Relations, Leisure Time, Mass Media, Population Growth, Sciences, Social Adjustment, Social Change, *Social Influences, Social Values, Technological Advancement, Technology, Television, Urbanization

This is one of three volumes discussing in greater depth recommendations made in SCHOOLS FOR THE SIXTIES, which is the official report of the National Committee of the National Education Association (NEA) Project on Instruction. This volume centers on social forces and trends and their effects on education. Topics considered in the 10 chapters include "The Setting," "Science and Technology," "Economic Growth," "Large Bureaucratic Organizations," "Leisure Time," "The Mass Media, Particularly Television," "Urbanization," "Population Growth," "International Interdependence and Conflict," and "Some Tasks Ahead." The first part of each chapter is a discussion of the social forces themselves, while the second part is a discussion of the educational implications of these social forces. Appended are "A Summary List of Issues and Recommendations," "Notes and Footnotes," lists of "Officials of the National Education Association, the National Committee, and Others Involved in This Volume," and "Reports of the NEA Project on Instruction." (SG)

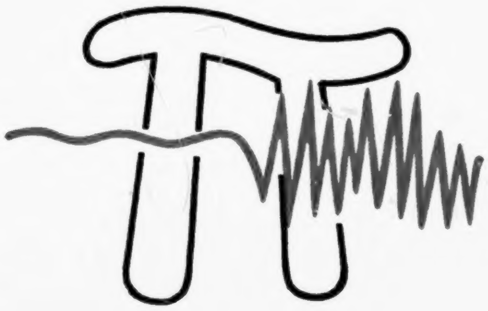
U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

ED024656

SP001978

EDUCATION IN A CHANGING SOCIETY



Project on the Instructional Program
of the Public Schools ■ National
Education Association ■ 1201 Sixteenth Street, N.W., Washington,
D.C. 20036

RICHARD I. MILLER is the writer of this report. He is associate director of the Project on the Instructional Program of the Public Schools, National Education Association.

Permission to reproduce this copyrighted work has been granted to the Educational Resources Information Center (ERIC) and to the organization operating under contract with the Office to Education to reproduce documents included in the ERIC system by means of microfiche only, but this right is not conferred to any users of the microfiche received from the ERIC Document Reproduction Service. Further reproduction of any part requires permission of the copyright owner.

First Printing, October 1963
Second Printing, February 1964

Copyright 1963 ■ National Education Association of the United States ■ Library of Congress Catalog No. 63-17132

Single copy: cloth, $2.75; paper, $1.75. Discounts on quantity orders: 2-9 copies, 10 percent; 10 or more copies, 20 percent. All orders not accompanied by payment will be billed with shipping and handling charges added. Orders amounting to $2 or less must be accompanied by payment. Order from and make checks payable to the National Education Association, 1201 Sixteenth Street, N.W., Washington, D.C. 20036. ■ Other major reports of the Project on Instruction are the following–Published by NEA: *Deciding What To Teach,* cloth, $3.25; paper, $2.25. *Planning and Organizing for Teaching,* cloth, $3.00; paper, $2.00. Published by Mc-Graw-Hill Book Co.: *Schools for the Sixties.* ■ Information concerning other Project publications may be found on page 164.

PROCESS WITH MICROFICHE AND
PUBLISHER'S PRICES. MICRO-
FICHE REPRODUCTION ONLY.

FOREWORD

Beginning with the gathering of 43 educators in Philadelphia in August 1857, the organized profession has given high priority to curriculum and instruction. The Project on Instruction is one of several major efforts sponsored by the National Education Association in this century to upgrade the quality of American education and to give it direction. These have included the 1918 statement of the "Seven Cardinal Principles" of education by the NEA's Commission on the Reorganization of Secondary Education and the 1938 and 1961 Educational Policies Commission statements on *The Purposes of Education in American Democracy* and *The Central Purpose of American Education.*

Authorized in 1959, the National Committee of the NEA Project on Instruction was commissioned as a means of providing guidance in a time of rapid change for schools. Many people have joined in this effort: elementary and secondary school teachers, school administrators, scholars in the academic disciplines, university professors of education, and distinguished laymen. Their interest and willing cooperation have been impressive testimony to a shared concern for improvements in learning.

The NEA is grateful for this valuable contribution and for the wise guidance given to the Project by the National Committee, its director, and staff. Special recognition is due Richard I. Miller, whose special competence in the area covered by this report has been of great help. The Committee has been most fortunate in having its deliberations so ably expressed.

William G. Carr
Executive Secretary, NEA

Melvin W. Barnes, Chairman
National Committee
Project on Instruction

CONTENTS

	Preface	1
One	The Setting	6
Two	Science and Technology	13
Three	Economic Growth	32
Four	Large Bureaucratic Organizations	43
Five	Leisure Time	49
Six	The Mass Media, Particularly Television	60
Seven	Urbanization	75
Eight	Population Growth	88
Nine	International Interdependence and Conflict	98
Ten	Some Tasks Ahead	121
Appendix A/	A Summary List of Issues and Recommendations	133
Appendix B/	Notes and Footnotes	144
Appendix C/	Officials of the National Education Association, the National Committee, and Others Involved in This Volume	155
Appendix D/	Reports of the NEA Project on Instruction	164

PREFACE

The facts of our twentieth century life—a rapidly changing society, a mounting store of knowledge, and new understandings about people and about learning—create some basic problems relating to the instructional program of the schools. There is no shortage of ideas about what these problems are and how they should be solved. There is, in fact, a constant babble of voices as millions of people with many and often conflicting ideas speak out about education.

Some of the voices call for a return to the "solid subjects." Some prescribe the same program for all pupils, regardless of individual differences. Some ignore what is known about the ways children learn. Some express concern only for more and more attention to their particular subject.

Some of the voices come from outside the profession. Some come from within the profession at the university level of academic and professional scholarship, and many come from leaders in elementary and secondary education.

All of these voices have a right to be heard. One voice that should speak out clearly indeed is the voice of the teaching profession itself. With this firm belief, the National Education Association established in 1959 the Project on the Instructional Program of the Public Schools (Project on Instruction). To this Project it gave a major task: Make thoughtful and creative recommendations to serve as a guide to the profession and the public in their combined efforts to study and improve the quality of the instructional program in the schools.

A fourteen-member National Committee and a headquarters staff were appointed to carry on the work of the Project. The National Committee was composed of classroom teachers, public school administrators, and university professors. From time to time, distinguished citizens and scholars in the academic disciplines served in special advisory capacities.

Early in its deliberations, the Committee examined its role as a spokesman for the organized teaching profession. The members agreed unanimously that the Committee's function was not to respond to the "critics," nor to enunciate a "national curriculum," nor to recommend specific content. Rather, the Committee decided it could make the most significant contribution by identifying critical concerns in American education and formulating recommendations about them.

Inevitably, limits had to be set for the scope of the Project. These limits were set in terms of the timeliness of the issues, the feasibility of their resolution, and the desire not to duplicate significant work already completed or now in progress by other groups. In addition, it was determined that an analysis of a few crucial decision areas was more in keeping with the Project's goals than a generalized approach would be. Therefore, issues related to pupil or staff evaluation, teacher education, and matters dealing directly with the teaching act were not given major attention.

Three major tasks, then, gave structure to the Project: (a) identification and clarification of instructional issues or questions, (b) development of recommendations about the issues, and (c) explanation of the reasoning used to arrive at the recommendations. In the identification process, two categories—"Deciding What To Teach" and "Planning and Organizing for Teaching"—emerged to become the focus of intensive study. For analysis of these issues, Project participants used three sources of data: (a) the academic disciplines; (b) social forces and trends, including the status of present instructional practices in the schools; and (c) the research in human growth and development and the psychology of learning. Twelve specific decision areas were identified; twelve questions were asked about the instructional program. The Committee is on record that, within the limits set by the Project, these are the important questions about which decisions must be made. They are—

DECISION AREA I
DECISION MAKING
Who should make what decisions about education?

Decision Area II

RESEARCH, EXPERIMENTATION, AND INNOVATION

How can an extensive program of educational research, experimentation, and innovation be developed?

Decision Area III

EDUCATING ALL CHILDREN AND YOUTH

How can the instructional program of the school be designed to develop the individual potentialities of all members of the school population within the framework of a society that values both unity and diversity?

Decision Area IV

ESTABLISHING PRIORITIES FOR THE SCHOOL

What are the distinctive responsibilities of the school in contrast to those that are distinctive to the family, the church, industry, and various youth-serving agencies?

What responsibilities should the school share with other institutions and with other youth-serving agencies?

What, then, should be included in the school program?

What should be excluded from it?

Decision Area V

THE SCHOOL'S ROLE IN DEALING WITH NATIONAL PROBLEMS RELATED TO YOUTH

What is the school's role in dealing with serious national problems such as youth unemployment and juvenile delinquency?

Decision Area VI

TEACHING ABOUT CONTROVERSIAL ISSUES AND ABOUT COMMUNISM

What is the school's role in teaching about controversial issues and about communism and other ideologies?

Decision Area VII

A BALANCED PROGRAM

How can the school provide a balanced program for the individual and maintain it amidst various pressures for specialization?

Decision Area VIII
SELECTING CONTENT

How can schools make wise selections of content from the ever-growing body of available knowledge?

Decision Area IX
ORGANIZING CONTENT

How should the content of the curriculum be organized?

Decision Area X
ORGANIZING THE CURRICULUM

How should the curriculum of the school be organized to give appropriate direction to the instructional process?

Decision Area XI
ORGANIZING THE SCHOOL AND THE CLASSROOM

How should the school and the classroom be organized to make the most effective use of the time and talents of students and teachers?

Decision Area XII
INSTRUCTIONAL MATERIALS, TECHNOLOGY, SPACE

How can the quality of instructional materials be improved?

How can the products of modern technology be used effectively?

How can space be designed and used to support the instructional program?

These twelve questions and the thirty-three recommendations related to them are outlined and discussed in *Schools for the Sixties,* which is the official report of the National Committee of the NEA Project on Instruction, published by McGraw-Hill Book Company. They are taken up separately and in greater depth in the three supporting volumes published by the National Education Association, of which this, *Education in a Changing Society,* is one. The others are *Deciding What To Teach* and *Planning and Organizing for Teaching.*

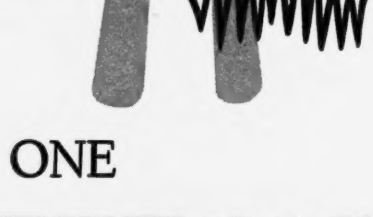
The Project on Instruction is devoting this major report to social forces and trends as a contribution to better understanding of the traditions and heritage our citizens expect young people to acquire through schooling and as an aid to anticipating the demands that society will place upon public education in the future.

If major forces and values are viewed in the context of education alone, the influence of education may be exaggerated or distorted because noneducational demands and issues are not taken into account. At the same time, educational implications cannot be seen realistically unless they are considered as arising from a broad social context.

For these reasons, the substance of social forces is described in the first part of each chapter that follows and the educational implications that flow from them are considered in the second part.

The National Committee will be satisfied if this report and its companion volumes stimulate intelligent and spirited conversation about significant questions in education and if that conversation leads on to action that makes a difference in the schools of America.

Ole Sand, Director
Richard I. Miller, Associate Director



CHAPTER ONE

THE SETTING

Social Forces
Educational Values

Dynamic forces are working with incredible speed today. Man is advancing so rapidly that new knowledge and technology confront him before he has fully understood past achievements. Keeping abreast of developments requires running fast just to keep up. Probably nowhere else does this rapid change present greater problems than in public education. Progress in knowledge itself, in instructional technology, and in school design greatly complicate the problems of education. The generation now in school will spend its adult years in a society that probably will be as radically different from today's as the society of the sixties is from that of the early twentieth century.

At this moment in human history we walk toward the bright prospect of peace and plenty that science and technology can bring about, yet we walk in the Damoclean shadow of nuclear annihilation. Reinhold Niebuhr has said: "There are no certain climaxes of history since every conceivable climax may, for all we know, be succeeded by a more vivid one. But compared with the past we are certainly living in the most impressive climax of history, judged both quantitatively and qualitatively. Our nation has been destined to play a very responsible role in this climax. Our decisions can become fateful for the very survival of our civilization."[1]

SOCIAL FORCES

One of the 33 recommendations of the Project on Instruction of the National Education Association concerns social forces and trends. It states—*To help the student think critically about current issues, the curriculum should provide opportunities for adequate instruction concerning social forces and trends. Attention commensurate with their significance in modern society should be given to issues such as international relations, economic growth, urbanization, population growth, science and technology, and mass media.*

As teachers, administrators, curriculum specialists, and others work to improve the instructional program, they need to consider carefully the influence of social forces and trends and to answer such vital questions as these: Does the school program deal with science and technology in a fundamental manner? Are future trends in economic growth adequately reflected in the curriculum? Does the school give more than lip service to a program of educating students to make worthy use of their leisure time? What curricular adjustments are necessitated by patterns of population growth? How can the school teach about international relations more effectively?

Educating students to contribute to their culture includes acquainting them with social forces and trends and helping them learn to analyze and criticize contemporary problems. No one expects that students will "solve" the problems they study, in the sense that solving requires definitive action. But through such study, young people can gain better understanding of the issues of this decade and be better prepared to cope with problems of the future. Although youth cannot be given a blueprint of their adult world which depicts its achievements and tensions, they can acquire a background of information that will help them understand problems as they arise, as it seems likely that the critical concerns of tomorrow will be the results of forces and trends in operation today.

Identifying social trends is a matter of predicting from available evidence. As evidence is accumulated, the prediction may be reinforced or modified. The study of social trends should be based on fact. It also should give sufficient attention to scholarly methods of analysis so that teachers and others will understand how the conclusions were derived and that they are likely to be modified in the light of future developments. Such study will prepare teachers to better understand social trends that may emerge during their lives and those of their students.

EDUCATIONAL VALUES

Every society is sustained by a core of values that lies at the heart of its way of life. These values are rarely articulated by the average person but known intuitively as a result of socialization that begins at birth and continues until death.

The values of a culture provide tone and spirit for the educational process. Yet there should be differences between general cultural values and educational values. Educational values should reflect general cultural values, bolster them at weak points, and help maintain balance in their interplay. They provide a standard for present practices and a guide for future ones. Far from being esoteric ideals suitable only for the classroom, educational values are at the heart of the matter. It is essential, therefore, that all educational issues be weighed carefully in terms of values.

A Statement of Educational Values

The National Committee of the NEA Project on Instruction believes the following educational values are vital to the continuation and improvement of the public schools.

The survival and growth of the United States as a vigorous, democratic nation assume unusual importance in one of the most critical periods of the nation's history. The international uncertainty and tensions evident today probably will continue and indeed may increase during the coming decade. The eventual outcome of the titanic struggle between two ways of life with fundamentally different values regarding individual-state relationships may establish a pattern of social organization that endures for centuries. The organized teaching profession must stand ready to ensure that government "of the people, by the people, and for the people shall not perish from the earth."

Respect for the Worth and Dignity of Every Individual. The Declaration of Independence states our national faith in basic human rights with eloquent simplicity: "We hold these truths to be self-evident: that all men are created equal; that they are endowed by their creator with certain inalienable rights; that among these are life, liberty, and the pursuit of happiness."

Every child is important, and each one should have an opportunity to develop his interests and abilities fully. Every child should have an opportunity to receive as much education as he desires and can use well.

The individual is as unique as his fingerprints. Respect for his right to be different, to be alone at certain times and not part of any group, and to pursue his own interests is evidence of recognition of the individual's worth.

Faith in Man's Ability To Make Rational Decisions. The founding fathers of the nation placed faith and trust in the bold and optimistic belief that the common man, when educated, has the ability to make wise decisions about who should govern and how government should be conducted. Adherence to this philosophy has fostered in the citizens of this country a strong sense of social responsibility which has been instrumental in the development of free institutions and the growth of a system of free enterprise. Time has proved the wisdom and foresight of Thomas Jefferson, James Madison, George Washington, Horace Mann, and others who put their faith in the educated common man.

Shared Responsibility for the Common Good. Each generation of Americans must build, within the framework of democracy, an image of its own future. This image may be different for each generation, as conditions and its needs and potentialities differ. It should reflect, however, a balance between the rights and desires of the individual and the needs of society or the national interest. One consideration without the other distorts the essence of democracy. Our society values both unity and diversity.

Moral and Spiritual Values. No society can survive without a moral order sustained by the individual. A system of moral and spiritual values is indispensable both to individual integrity and to group living. As social organization becomes more complex and as rapid change creates greater personal insecurity, the need for a moral code becomes more imperative.

The American people rightly have expected the public schools to teach moral and spiritual values—to help students learn the importance of respect for the individual, personal and social responsibility, truth, acknowledgment of equality, obedience to conscience, the right of the pursuit of happiness, and an attitude of reverence toward the institutions of society. The public schools have a significant function in promoting the development of these values, recognizing at the same time that their development is primarily the responsibility of other educative agencies—the home, church, and community as a whole.

The public schools can and should teach objectively *about* religions without advocating any religious creed. To omit from the classroom all references to religions and the institutions of religion is to neglect an important part of American life. Knowledge of religions is essential for a full understanding of the culture, literature, art, history, and current affairs of this and other nations.

Emotional Health. A curriculum that promotes mental health recognizes the pupil's individuality, encourages his self-respect, and stimulates his ambition to realize his own potentialities. Emotional maturity includes being able to withstand stress without developing disabling symptoms, to find more satisfaction in giving than receiving, to relate to people in a consistent manner rather than switch behavior unpredictably, and to direct hostile energy into constructive outlets.

A school program designed to encourage mental health provides the student strengthening experiences that stimulate learning, develop critical thinking, and link thought and feeling in the development of a strong self-identity.

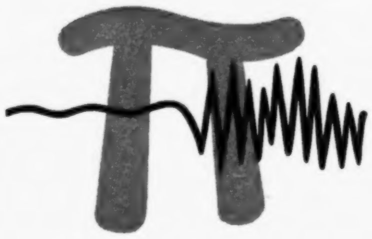
Freedom To Teach. The organized profession believes that freedom to teach is vital to good education and that educators should be fully committed to establishing such freedom more firmly.

The profession believes that every teacher has the right to teach in a manner consistent with authoritative evidence and research and that each teacher should be permitted to select from methods proved effective in developing behavioral change. Freedom and responsibility go hand in hand. Freedom to teach should not mean unrestricted freedom for the teacher, but neither should it mean restrictions unduly imposed by others. Freedom is nourished by the development of the capacity to make wise individual choices. A wide range of freedom is required to make choices in the objective climate of the school.

Teachers and school administrators should vigorously resist efforts by pressure groups to control the character and tone of the school program or to force teachers to use a particular approach in teaching school subjects, especially controversial ones. Thoughtful participation by lay citizens is, however, essential to good public education and should be encouraged.

Excellence for All. This is the guiding principle for education in the sixties. More than ever before the future will make great demands for excellence, not only from the talented but from each individual according to his ability and interests.

Quality education for *all* has been espoused by educators for most of this century, but the gap between the ideal situation and existing school practices remains wide. The United States can not afford the luxury of wasting human resources. All children should have the opportunity to receive quality education adapted to their varied needs. This is a part of the continued efforts to improve the American way of life.



CHAPTER TWO

SCIENCE AND TECHNOLOGY

Significance of Science and Technology
Science, Technology, and the Individual
Implications for the School Program

Science has been a vital factor in determining man's beliefs and outlooks for about three hundred years. As a major instrument for technological and economic development, it is only some one hundred and fifty years old. In this brief period, science and technology have proved to be incredibly powerful revolutionary forces. They profoundly influence cities, travel, leisure, social organization, moral and aesthetic sensitivities, and forms of government. They have transformed our lives.

These forces were important but not central to American life in the nineteenth and early twentieth centuries. Today they are at the heart of our life, forces we must live with and understand.

The distinction between science and technology is not always clear. Science is primarily concerned with understanding nature—our physical environment and living creatures, including man himself. This understanding furnishes the basis for meeting many practical problems. Technology is the application of scientific knowledge to practical concerns.

Much technological development of the past century has taken place with little relation to science. The textile mills of England and the production lines of the United States developed essentially outside of scientific activities. On the other hand, the chemical industry and the modern expansion of the electronics and plastics industries are directly based upon scientific research.

A man 50 years old today was born in what was virtually the horse-and-buggy age, yet he may live to see the beginning of interplanetary travel and the day when machines will be able to do a creditable job of thinking. He has watched development of the automobile and the airplane, observed the growth of radio communication and remote control, seen electricity replace steam; now he sees atomic energy begin to replace electricity.

SIGNIFICANCE OF SCIENCE AND TECHNOLOGY

Science and technology have influenced our society in at least five ways: production, transportation, and communication; occupational trends; cultural uniformity and diversity; centralization and specialization; and national policy.

PRODUCTION, TRANSPORTATION, AND COMMUNICATION

Scientific and technological developments have already brought about the age of automation in many industries and services. Devices taking the place of men can assume supervisory control and perform motor tasks such as rolling steel, mining coal, manufacturing engine blocks, weaving cloth, and sorting and grading everything from oranges to bank checks. Computers execute routine or complex logical tasks with incredible speed.

Automatic instruments are being used to analyze market portfolios for brokers; to design control systems for missiles and "fly" the missiles once they are launched; to keep up-to-date inventory records and print new stock orders based upon automatically computed rates of sales and inventory status; and to program, in terms of costs and traffic-flow characteristics, the appropriate angles and grades for complex traffic interchanges.[1] A major airline uses an electronic computer to check availability of seats on hundreds of flights for a six-month period. This accurate computer can reserve seats, cancel reservations, and tell any branch office how many seats are available on any flight for any day within a second or two, thereby saving thousands of hours of passenger time and company time.

The implications of the level of competence being achieved by some computers not only offer almost unbelievable possibilities but they are also provocative. For example, machines can already play a fair game of chess; in playing checkers they can show a marked superiority after 10 to 20 playing hours of work and indoctrination to the player who has programed them. Limited as their repertory of actions may be, they do unquestionably—so say those who have played with them—show ingenuity not merely in their tactics, which may be quite unforeseen, but even in their strategy.[2]

One can point to several advantages of automation and the use of computers: Machines are cheaper than people; they reduce human relations problems by reducing personnel; they improve business procedures with almost instant feedback of information; they increase efficiency because distance is not a barrier to control and coordination; and they can be helpful in maintaining and increasing the rate of growth of the gross national product.

But the advantages must be weighed against the social problems created—among them unemployment and increased leisure time. In the highly automated chemical industry, for example, the number of production jobs has fallen approximately 11 percent since 1954, while output has soared 27 percent. Though steel capacity has increased 20 percent since 1954, the number of men required to operate the iron and steel foundries—even at full capacity—has dropped by approximately 8 percent.

Occupational Trends

While this topic is treated more fully in the following chapter, the application of science and technology to industry should be mentioned here.* Entirely new industries have been created and others eliminated. The early automobile industry put more than 100,000 workers in the livery stables out of work. Today one of every seven Americans is employed in a job directly or indirectly related to the automobile industry. The electronics and airplane industries, started just two generations ago, today employ about 2.5 million persons. Figure I shows the comparative number of workers engaged in scientific and related technological fields (specifically, scientists and engineers) in the labor force from 1930 to 1960 and projects the number of such workers to 1970.

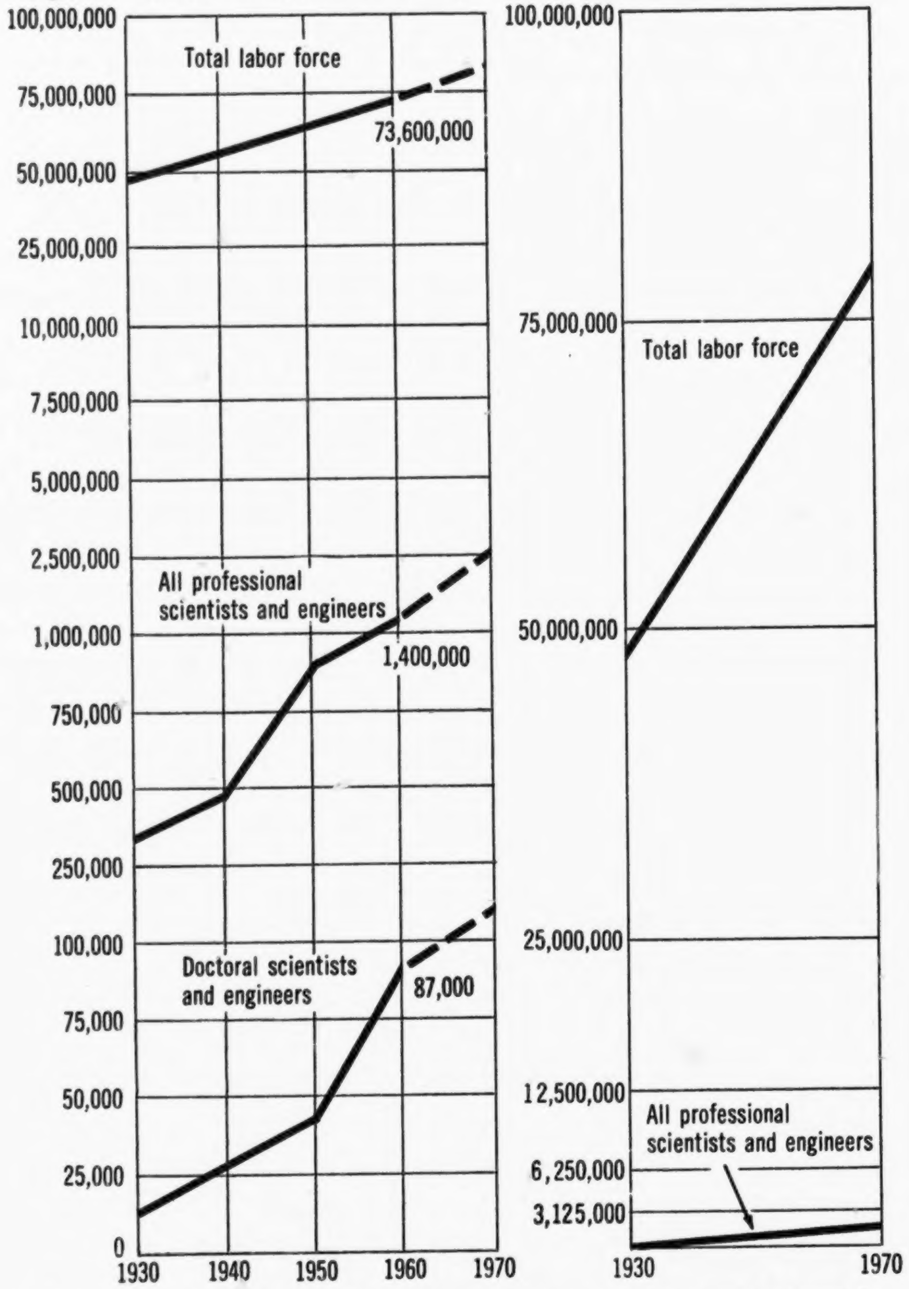
Cultural Uniformity and Diversity

Cultural patterns throughout the United States are evincing trends toward increasing uniformity in some respects and increasing diversity in others. The structure of American family life in the last decade presents a good example of the trend toward

---

* See Chapter Three for a more detailed discussion of occupational patterns and trends.

Figure I. Number of Scientists and Engineers in the Labor Force, 1930-70[a]



[a] The left-hand column shows the increase in number of scientists and engineers in the labor force, as well as the increase in the total labor force. The right-hand column compares the increase of scientists and engineers to the increase in the total labor force.

Source: National Science Foundation. **Investing in Scientific Progress, 1961-1970.** Washington, D.C.: the Foundation, 1961. p. 14.

cultural uniformity. People generally marry at a younger age than they did two or three decades ago; couples are usually nearer the same age than they were earlier in the century; and they usually have children in the first few years of married life. Few people now delay marriage beyond the twenties or childbearing beyond the early thirties. Families are likely to have two to four children, and couples without children are uncommon.

Differences in education and economic well-being are also being reduced as the difference in general income level decreases. Houses are being built more alike with few having less than four or more than seven rooms.[3] People even are likely to die near the same age from similar causes—for example, cancer and heart disease.

The increasing uniformity of American culture can be attributed to several factors. Mass production emphasizes quantity rather than variety, and this is compounded by the trend toward fewer and larger organizations. Massive modern cities tend to submerge the individual and to discourage many aspects of heterogeneity. The increasing concentration of control of the mass media tends to homogenize their content. For example, the press of the entire nation is served principally by two wire services. Finally, the concept of equality deeply ingrained in American thinking promotes a "leveling" of manners, attitudes, and ways of life, with an increasing uniformity as the result.

The factors that bring about the often-lamented cultural uniformity also produce benefits that ought not to be overlooked. Mass production, for example, has made possible better transportation, communication, and health and a higher standard of living. The pure food and drug laws have helped establish higher standards; the American Medical Association has been instrumental in securing higher standards for medicine.

Science and technology also have made greater diversity possible in some aspects of American life, a diversity based largely upon a widening range of choices. Two or three generations ago a citizen in the average American city was offered few alternative patterns and styles of living. In 1963 the average American could join more organizations, buy from a wider selection of materials, go more places by more means of travel, and be entertained and informed by more mass media.

CENTRALIZATION AND SPECIALIZATION

Science and technology have increased centralization and specialization in every part of U.S. society. Newspapers provide one example of the growth of the trend toward centralization. At the turn of the century, 74.5 million people were serviced by 2,202 general daily newspapers; today 180 million people are serviced by 1,763 daily papers, and a relatively high percentage of the dailies are owned by a few newspaper chains.

Greater centralization is apparent in the national government than formerly. The government now accepts responsibility for maintaining economic stability by preventing severe depressions and, at least in theory, excessive inflations. The idea that the U.S. government could or should accept such responsibilities was almost unheard of 30 years ago.

Because of scientific and technological advances, many problems of defense, schools, highways, and welfare programs have reached proportions that demand federal participation. Other examples of increased governmental participation and responsibility might be given. The crisis in water distribution which will face the nation by 1970 is a case in point. Recommended steps to be taken include building new dams and reservoirs and increasing experimentation in rain making, in economical means of desalting sea water, and in decontaminating rivers—all with increased participation of the federal government.

Some social and political developments based on science and technology have increased centralization. For example, federal agencies have been brought into existence by the development of radio and television, to regulate interstate commerce and to control interstate crime—all problems based in modern science and technology.

Specialization and interdependence lie at the roots of centralization, and the perfection of science and technological development depends to no small extent upon increasing specialization and interdependence. One might say that specialization takes place because men are different in nature, capacity, and skill: no man can be in two places at the same time; no man can do two things at the same time; and no man can know everything.[4]

Herbert Spencer's concept of the individual as a cell and of society as an organism is applicable here. As cells in the higher biological organisms coordinated through a central nervous system are more differentiated than cells in lower organisms, so individuals in the more advanced societies are more differentiated through division of labor than those living in less advanced societies. Yet they have less freedom because the total society is more integrated.[5] This concept contains a warning for democracy. The need for and fact of increasing interdependence must not be accompanied by diminution of basic freedoms. Too much industrial centralization may sap individual initiative, create excessive red tape, widen the gap between central headquarters and workers in the field, and result in poorer materials and services. Excessive political centralization can take from citizens a genuine sense of responsibility and participation.

NATIONAL POLICY

Science and technology are becoming instruments of national policy to a growing extent. Governmental activities in science and technology started in the nineteenth century when federal action took three major interrelated forms: protection and support for science and technology, use of science and technology to accomplish governmental purposes, and cooperation with scientific and technological societies. World War II accelerated governmental activity in science and technology. It became evident by the end of the war that the federal government would have a sustained and major responsibility for using science and technology directly and for encouraging scientific and technological programs in colleges, universities, and elsewhere.

The government's first general-purpose science agency, the National Science Foundation, was established in 1950. Its responsibility was to develop a national policy for the promotion of basic research and education in the sciences. Following the launching of Sputnik in 1957, President Eisenhower appointed a special assistant for science and technology and brought the Science Advisory Committee into the executive branch of government. This Committee, in turn, was instrumental in establishing a Federal Council on Science and Technology (1959), representing the highest policy-making levels of all government departments and agencies.

The increased federal role in scientific research and development is reflected in the growing proportion of the total federal budget being allocated for national research and development in science and technology. In 1953-54 federal funds set aside for basic research in science and technology constituted 45 percent of the total national expenditure from all sources for basic research. The amount of federal money allotted in 1957-58 had grown to 51 percent of the national expenditure, and in 1960-61 it reached 60 percent. Industrial participation in providing funds for basic scientific research decreased from approximately 34 percent of the national total in 1953-54 to 30 percent in 1957-58 and to 22 percent in 1960-61. College and university contributions decreased from about 14 percent of the total national expenditure to 13 percent during this period. Other nonprofit institutions accounted for the balance of national spending for basic research, and their total contribution declined from approximately 7 percent to 6 percent.[6] These statistics are sufficient to indicate the extent to which the federal government *is* guiding the direction and nature of science and technology. The extent to which the federal government *should* guide science and technology is another question.

Governmental support of research should be appraised by the purposes and priorities established by the federal government. An overemphasis upon military technology, for example, could result in insufficient attention being given to basic scientific research, which is the best insurance for technological improvements in the long run. Excessive dependence upon the government for research support can also lead to restrictions on the freedom and initiative of scientists.

SCIENCE, TECHNOLOGY, AND THE INDIVIDUAL

Not only has *society* been profoundly influenced and transformed by science and technology, but the life orientation of the *individual* has been greatly affected. Three aspects of this transformation will be discussed.

Style of Living

The products of science and technology are often taken for granted. Two examples of their acceptance are the extensive use of electrical appliances and the accomplishments of medical science. Today television, virtually unknown in 1946, is in 88 percent of all electrically wired homes (over 95 percent of all American homes are wired for electricity); 98 percent of electrically wired homes have refrigerators; 72 percent have vacuum cleaners; 95 percent, electric washers; 18 percent, electric dryers; and 18 percent, air conditioners. Many diseases have been conquered by medical science, and new techniques of surgery have contributed much to prolonging and improving life.

The generally held belief in the United States that every man has a right to ease and comfort in his daily living is quite different from the attitude of most societies in the past and many in the present. The American people seem committed to the idea—a logical consequence of emphasis upon the comforts of life—that material success is not the reward only of hard work or skill but that life should be pleasant for all and that all should attain a high level of consumption and contentment.

Personal Security

The growth of science and technology has created conditions that tend to accentuate individual insecurity. The revolutions in industry, transportation, and communication, for example, have created new kinds of interpersonal relationships. The division of labor has made individuals more interdependent, so that tremors in one part of society affect many other segments. Yet despite mutual needs, individuals have become more estranged from one another. Social responsibility and community spirit have weakened, and long-held faiths are being questioned with greater frequency.

The rapidity of change can be a factor in personal insecurity. The present tempo of research and development means that many scientific concepts and theories will probably undergo extensive revisions about every ten or fifteen years. It is possible that some fundamental knowledge in a science acquired in 1962 may be inadequate by 1970 and quite obsolete by 1977.[7]

Lifelong neighborhood relationships already are a thing of the past for most Americans. The sense of "belonging" to a particular community will not be experienced by many people until they retire. Individuals may compensate for a lack of community ties by strengthening immediate family relationships. Some observers believe the development of closer family affiliations than have been characteristic in the past decade is a reaction against the effects of mobility, urbanization, and bureaucratic organizations.

The complex and uncertain nature of the future may lead some youth and adults to conclude that it is best to live for the present. Rapid change exaggerates differences between the past and the future. Grandparents may seem strangely old-fashioned to their grandchildren, and sometimes the ideas of the young and the old are far apart. The rise of existential philosophies is a reflection of the live-for-the-present attitude.

Can man, with the assistance of science and technology, solve existing problems quickly enough to be prepared to deal with new ones created by rapid change? The answer to this question is not optimistic. At the present, new problems in many fields seem to be outrunning administrative and organizational mechanisms for making and carrying out decisions about them.

A WAY OF THINKING

The influence of science and technology on modern society has re-emphasized a method of examining and solving problems. The scientific method starts from unanswered questions about the universe and/or the nature of man and stresses an objective outlook and rational selection of alternatives. It may proceed through the following or similar steps:

First, one recognizes that an indeterminate situation exists, obscure or conflicting, which demands clarification.

Second, one states the existing problem in manageable and understandable terms that are specific enough to allow action.

Third, a plan of action is devised. It may include hunches or hypotheses before the data are gathered and appraised. The plan may use controlled observation, library research, and/or experimental evidence.

Fourth, the data are collected and classified, with perhaps some preliminary and informal appraisal taking place.

Fifth, the data are reviewed and evaluated.

Sixth, statements, conclusions, and/or recommendations are formulated from appraisal and evaluation of the data.

Seventh, the conclusions may be tested against reality or, in other instances, by theoretical means.

Eighth, the conclusions are modified, if necessary, on the basis of what is revealed in the seventh step.

IMPLICATIONS FOR THE SCHOOL PROGRAM

The theme of lifelong learning and adaptability is the overriding implication for education to be drawn from developments in science and technology. Public education in the sixties will be severely challenged to keep up with scientific thought and technological change.

►The use of instructional technology promises to have a profound influence upon the instructional program. Two distinct trends already are apparent—toward a mass instructional technology and toward technology designed for individual instruction.

Television is the most obvious example of mass instructional technology. Teaching machines are examples of individual instructional technology, and five major types already are in use. In order of ascending sophistication, they are—

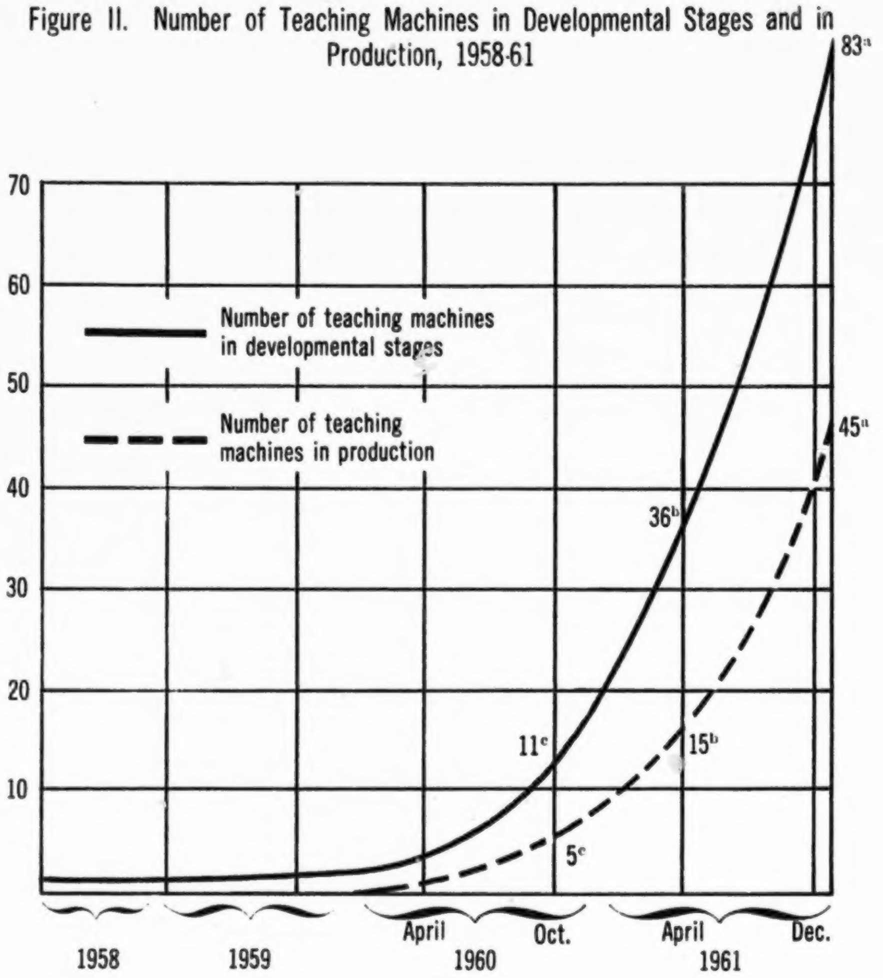
1. Individual reading pacers and similar devices.
2. Individual viewing and listening equipment for existing slides, filmstrips, motion pictures, and recordings.
3. Language laboratories of all types.
4. Specifically programed printed materials, such as scrambled textbooks.
5. True teaching machines containing carefully worked-out verbal or pictorial programs with various ingenious mechanical or electric arrangements designed to test the student's reaction and inform him of his progress and errors.[8]

Figure II shows the number of teaching machines in development and production stages which are intended for school use.

The growth of instructional technology has been spectacular. In the 1950 edition of the *Encyclopedia of Educational Research*, for example, there were 120 references to research in audiovisual instruction. In the 1960 edition, there were 320 references. The number of language laboratories that provide individualized foreign language instruction through electronic aids increased from 64 in 1958 to 458 in 1960. Similarly, the growing interest in programed learning and teaching machines is indicated by the increasing number of articles and studies about instructional technology. Eight studies were reported in 1957; 35, in 1958; and more than 50, in 1959. The number continues to grow, and a greater rate of acceleration is anticipated in the sixties.[9]

What is the attitude of teachers and administrators toward instructional technology? A few educators oppose it today in much the same spirit as did a speaker before the New York State Education Association in 1870. He cautioned that "in looking so closely after the mechanism of education, we have lost something of the life and spirit of our teaching. Our methods

Figure II. Number of Teaching Machines in Developmental Stages and in Production, 1958-61



[a] Technological Development Project of the National Education Association study.

[b] Study reported in the following source: Sturwold, Virginia G. "Sources of Self Instructional Devices." **Audiovisual Instruction** 6: 144-45; April 1961.

[c] Study reported in the following source: Fry, Edward B.; Bryan, Glenn L.; and Rigney, Joseph W. "Bibliography of Commercially Developed Teaching Machines." **AV Communication Review 8**: 75-79; October 1960.

Source: Finn, James D., and Perrin, Donald G. **Teaching Machines and Programed Learning, 1962: A Survey of the Industry.** Washington, D.C.: Technological Development Project, National Education Association, 1962. Figure 3, p. 24.

are tending more and more to become formal, mechanical and superficial . . . [but] so long as people like this showy mechanism of our schools, they will have it."[10]

But the more prevalent attitude today is much different, according to evidence from a survey conducted by the NEA Project on Instruction. Elementary school principals reported that 36 percent of the elementary school teachers had positive attitudes toward the use of technological aids, that 54 percent had lukewarm reactions to the use of machines, and that only 7 percent were estimated to be negative toward it. For secondary schools, the survey revealed that 32 percent of the teachers were considered by secondary school principals to have positive attitudes; 63 percent, lukewarm; and only 5 percent, negative.[11] In most instances, "lukewarm" attitudes could be interpreted as mild interest in the matter or as a "wait-and-see" attitude.

►Attention given to science and mathematics in the instructional program will increase in the sixties, according to findings of the Project on Instruction's survey. When a selected sample of 804 elementary school principals were asked to identify what they believed was the "one most important change" that had taken place from 1956 to 1961, the largest number (38 percent) cited emphasis on subject matter. Within this category, the largest number said more emphasis on science and mathematics was the most important change.[12]

The survey also revealed that 72 percent of the elementary school principals believed too little emphasis was placed on *science* in 1955-56 and 32 percent believed too little emphasis was placed on *mathematics* in 1956. Similarly, the attitude of secondary school principals toward the emphasis placed on science and mathematics in the pre-Sputnik era was that insufficient attention was given to these subjects.[13]

A different trend is evident in Soviet education. While mathematics remains the *key* subject in all Soviet primary and secondary schools, increasing emphasis is being placed on polytechnical subjects—primarily vocational and agricultural—rather than upon more mathematics and science. While 2,822 hours of instruction and training were added to the entire primary-secondary Soviet school program between 1956 and 1960 (an increase of 28 percent), only 318 of the hours were in social humanities (an increase of 6.3 percent), and no more than 400 hours were in mathematics and science (an increase of 12 percent). However, in the polytechnical subjects over 1,900 hours were added, an increase of 232 percent.[14]

►The scientific method of thinking has had great impact upon how people look at the world and themselves, but its impact is not always felt in the curriculum. The thrill of discovery frequently is missing from the learning of science as well as other subjects. Too often students are given certain premises they are expected to accept as authoritative—as a "rhetoric of conclusions"*—rather than to question and to have an experience in inquiry.

The public schools have a vital role in helping pupils develop the processes of rationality which will assist them in solving a great variety of problems—from searching for causes of the failure of an electric light to conducting an experiment in nuclear physics. In each case the method of inquiry used in finding the answer might follow a similar pattern, even though the form and nature of respective steps in the process may differ greatly.

►Science teaching is undergoing the greatest change in its history. In seeking to answer the fundamental question raised by Herbert Spencer in 1848—"What knowledge is of most worth?"—entirely new courses have been developed in many fields. Most important, these courses are concerned with the basic structure and concepts. Facts, concepts, and structure have been woven into an integrated whole in most studies and the emphasis is upon *how* and *why* as well as *what.*

While the new subjects are promising for the future of science teaching, many problems remain. Elementary science has usually been taught by a pictorial method based on relatively standard topics such as weather, nature study, and magnets and on a series of "magic" experiments. Often elementary science has not revealed the connections between natural phenomena, and often the students have been expected to accept results on faith rather than on the basis of their own inquiry and experimentation.[15]

---

* National Education Association, Project on the Instructional Program of the Public Schools. *The Scholars Look at the Schools: A Report of the Disciplines Seminar.* Washington, D.C.: the Association, 1961. p. 4.

Science at the secondary school level also suffers from lack of correlation between sciences as presented in the school and as understood by scientists. Fortunately, this problem soon may be ameliorated by the major studies now under way.*

The problem of teacher preparation remains. The report of the task force on New Horizons in Teacher Education and Professional Standards states that the educator must "know his teaching field (or field related to his special function) as fact and as discipline."[16] The application of this recommendation is an important challenge to the teaching profession.

►The accessibility of ease and comfort in daily living has important implications for education. It is obvious that this attitude permeates the atmosphere of some, but not all, schools. Rigor for its own sake is not desirable, but a more rigorous approach to essential learning techniques and knowledge is another matter.

Too often the public schools and the teachers are scapegoats in matters that concern *all* citizens. A laxness in some schools cannot be blamed solely upon teachers when society at large is equally or more responsible for it. This point has been stated forcefully by Commager, as follows: "Many of the failures we ascribe to contemporary education are in fact failures of our society as a whole. A society that is indifferent to its own heritage cannot expect schools to make good the difference. A society that slurs over the fundamental principles and takes refuge in the superficial and the ephemeral cannot demand that its schools instruct in abiding moral values. A society proudly preoccupied with its own material accomplishments and well-being cannot fairly expect its schools to teach that the snug warmth of security is less meaningful than the bracing venture of freedom. In all this, to reform our schools is first to reform ourselves."[17]

---

* For a description of the major studies in the sciences see the following: National Education Association, Project on the Instructional Program of the Public Schools. *Current Curriculum Studies in Academic Subjects.* (Prepared by Dorothy M. Fraser.) Washington, D.C.: the Association, 1962. 102 pp.

Educators, in fact, would demand more effort from students than would the general public. A 1958 survey of over 1,100 principals found 79 percent stating that schools demand too little work of their students. In contrast, only a little more than half of the parents held this opinion, and one parent in three believed that requirements at that time were satisfactory.[18] The survey study of the NEA Project on Instruction (1961) inquired about the amount of school work expected of students. Of the elementary school principals, 51 percent believed that more work was expected from their pupils in 1960 than five years earlier; of this number, 63 percent thought it was a good thing. Of the secondary school principals, 68 percent believed more work was expected from pupils now than in 1955-56; of this number, 68 percent thought it was a good thing.[19]

►Science teaching should not avoid the question of values. Three specific points should be kept in mind:

1. Students need to learn how to evaluate the differing responsibilities of scientists and of the men in government who are responsible for deciding the uses to be made of scientific discoveries. This difference already has become a matter of major importance to citizens in connection with military technology and undoubtedly will become more so. The American public has not always made this distinction; that people be able to do so becomes increasingly important. The responsibility of duly elected officials must always remain paramount in important decisions affecting the citizens of the nation. When scientists, who are essentially suppliers of data for their government, go beyond their areas of special competence, their statements should be evaluated as the judgments of any spokesmen for the public good.

It is significant that Dwight D. Eisenhower, in his farewell speech as President of the United States, gave stern warning about the growing role of the military in our national life: "The total influence (of the industrial-military complex)—economic, political, even spiritual—is felt in every city, every state house, every office of the federal government. We recognize the imperative need for this development. Yet we must not fail to comprehend its grave implications. Our toil, resources and livelihood are all involved; so is the very structure of our society."

2. Utilitarian interest in the products of science should not overbalance our values, our way of life, our respect for life itself. Stephen Vincent Benet recognized that man might be dominated by his inventions when he wrote of the machine:

> The great, metallic beast . . .
> The genie we have raised to rule the earth,
> Obsequious to our will
> But servant-master still,
> The tireless serf already half a god. . . .

3. Technological changes should not be confused with changes in values. Basic values change slowly; the fruits of science and technology are accepted quickly and willingly. Traditional values provide a society with a sense of continuity, purposefulness, and integration that is essential for reasonable stability. These values have undergone marked change in the past and undoubtedly will continue to do so in the future. Although this change is related to changes based on scientific and technological developments, it is fundamentally different. Students need to be aware of this difference, for in addition to facts, concepts, and the structure of science, an attitude about science is an important part of their science learning.

CHAPTER THREE

ECONOMIC GROWTH

The Importance of Economic Growth
Key Factors in Economic Growth
Implications for the School Program

Many people assume that economic growth, like "Ol' Man River," just keeps rolling along. They assume that, interspersed with a few depressions, the over-all economic trend in the United States is inevitably upward and onward. Yet steady economic growth has been rare in the history of the world. Long periods of stagnation and poverty were typical of most past civilizations. Rapid, large-scale growth of national economies has occurred only in the past 200 years in a small part of the world. Today in many heretofore underdeveloped countries there is a "revolution of rising expectations" based largely on economic growth.

Economic growth may be defined as the progressive rise, either in the total output of the economy or in the output per person, or both, over a relatively long period of time. Economic growth is popularly measured by gross national product (GNP) in constant dollars, although a more precise index is obtained if a measure of efficiency is also used, such as the increased output per unit of input (of labor and capital) over a given period. The GNP is the total money value of all goods and services produced in a nation during a given year, including those purchased by the government. The term "annual rate of growth" usually refers to the percent of increase of the GNP.

However measured, growth has been a dominant characteristic of the U.S. economy. From 1870 to 1930 the total GNP increased about 3 percent per year. There were many fluctuations in the growth pattern, yet the continuing growth over the long period of time rather than the variations is more striking.

The United States achieved an annual growth rate of about 9 percent from 1939 to 1945.[1] In the postwar period, the rate has been 3 to 4 percent per year. The adequacy of this rate for future needs has been questioned by economists; indeed, "growthmanship" was an issue in the 1960 Presidential election.

THE IMPORTANCE OF ECONOMIC GROWTH

Economic growth affects a nation's attitude about itself and the image the people of the nation have of themselves. It is a spirit as well as a fact. A nation that can claim rapid economic expansion—"the progressive state," as Adam Smith called it—"is in reality the cheerful and the hearty state to all the different orders of the society. The stationary is dull, the declining melancholy."[2]

There are other, more tangible reasons why a steady economic growth is important. One reason is that economic growth is the basis for a high and improving standard of living. Growth of production and wide distribution of the products have improved living conditions. Another reason is that the extension of economic assistance abroad and the support of an adequate defense budget at home depend upon economic growth.

Improvement in public services is also dependent on economic growth.[3] The difference in the GNP between a growth rate of 3 percent and one of 5 percent would amount to approximately $143 billion in 10 years. This extra 2 percent margin of growth could spell the difference between a static level of consumption with a minimum expansion of needed public services such as education and a fuller realization of national aspirations.

Economic growth, however, is not an end in itself. Rather it is a means of achieving other ends such as a higher standard of living, more public service, and greater capacity to compete successfully with communism—ends consistent with the desires of the American people and the best interests of the nation.

KEY FACTORS IN ECONOMIC GROWTH

Many factors affect economic growth. Among them are production, resource development, organizational development, and government policies.

Production

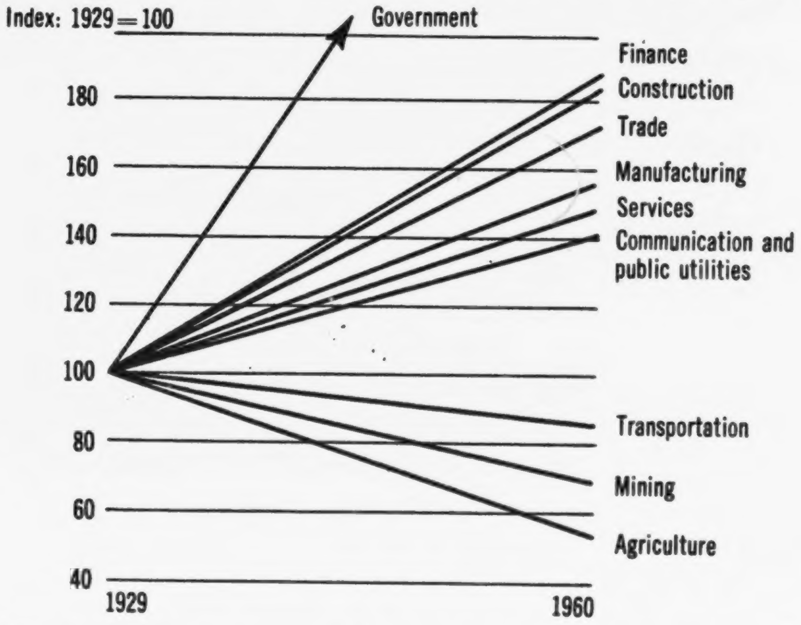
Production—the creation of goods—requires natural resources, labor (human resources), and machines and equipment (physical capacity).

A rich and abundant store of natural resources, including raw materials and the physical environment itself, has helped to sustain the economic growth rate of the United States. Natural resources in themselves, however, do not ensure economic growth. They are valuable assets, to be sure, but some nations manage to achieve economic growth despite meager resources. Every industrial nation has some gaps in its supply of natural resources. The United States imports many metals essential to its defense industry and many commodities that are in popular demand.

All human endeavor that aids production, from muscle power to brain power, may be termed "labor." Individuals over 14 years of age who are employed or are seeking employment, from the President of the United States to the unskilled laborer, are considered part of the labor force.

Occupational patterns have changed much (see Figure III). Following World War I came a trend away from such traditional

Figure III. Changes in U.S. Employment by Industry Groups, 1929-60[a]



[a] This figure shows the changes that took place from 1929 to 1960 in the pattern of employment in the United States. Indirectly, it suggests the mobility both of labor and capital resources which has been a continuing characteristic feature of American economic growth.

Source: Committee for Economic Development. **Economic Growth in the United States: Its Past and Future.** Up-to-date charts. New York: the Committee, 1960. Figure 13, p. 7.

occupations as mining, agriculture, manufacturing, and construction toward service industries. Today, over 55 percent of the labor force is engaged in trade, finance, government, transportation, communication, and service.[4]

The labor force is growing almost explosively. The total number of workers during the 1960's will be much larger than it has been during any other 10-year period in our history. The increase will be nearly 50 percent greater than it was during the 1950's.

Major changes are taking place in the composition of the labor force. An increasing number of women and, notably, of mothers is employed. About 40 percent of the mothers of school age children were in the labor force in 1960 compared with about 28 percent in 1950. Included in this 1960 group of over 4.5 million mothers were approximately 1 million who were not living with their husbands.[5] Women workers are found in nearly every occupation, but the types of positions they hold are somewhat different from those of men.[6]

Changes are also occurring in the kinds of jobs available. The requirements of the economy are expressed in the growing need for skilled workers. In 1957, white-collar workers outnumbered blue-collar workers for the first time in U.S. history, a trend that is growing (see Figure IV).

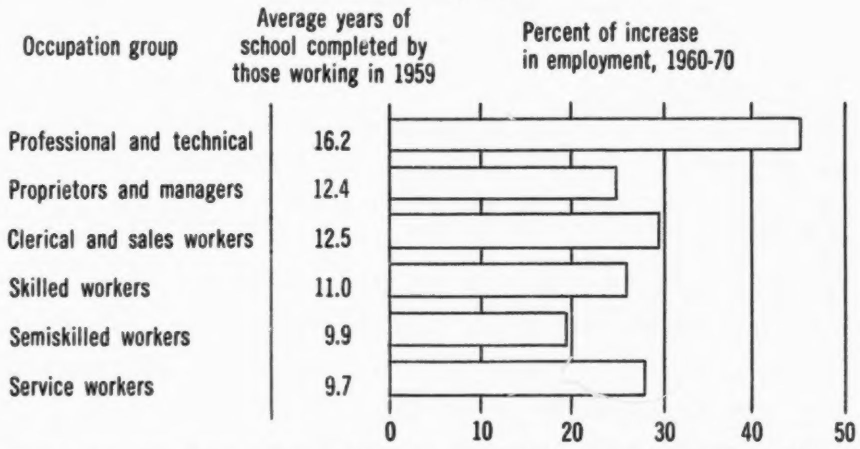
A nation's economic growth depends upon the effective knowledge, technical abilities, skills, and energy and diligence of its workers and upon the size and quality of its resources. Leadership and vision are needed to provide education that will keep the labor force abreast of the times.

RESOURCE DEVELOPMENT

A second factor important to economic growth is resource development. Progress in this area depends upon capital formation, savings and investment, risk taking, demand, and research and development.

Capital may be thought of as a tool of the economy, as shovels and electronic computers are tools of the worker. Capital forma-

Figure IV. Percent of Increase in Employment of Various Occupation Groups, 1960-70



Source: U.S. Department of Health, Education, and Welfare, Office of Education. **Education for a Changing World of Work.** Summary Report of the Panel of Consultants on Vocational Education requested by the President of the United States. Washington, D.C.: Government Printing Office, 1963. p. 4.

tion occurs when economic growth generates incomes high enough to allow savings. A high rate of economic growth and a high rate of capital formation are practically synonymous. One should not conclude, however, that the mere existence of capital guarantees economic growth. That overcapacity and unemployment are simultaneously part of the U.S. economy at present indicates that it is the investment of capital, not just its presence, which significantly influences growth in a free economy. Investment takes place in a climate of optimism which enables individuals and organizations to risk present capital for future profit. Optimism, as much as advertising and population growth, lies at the basis of consumer demand.

Consumer demand is a dominant factor in determining the direction and extent of U.S. economic growth, although other factors, such as government purchases, are becoming increasingly important. Consumer preferences exercise a significant influence upon the quantity and quality of the nation's production.

Changes in demand result from traditional forces such as opening new lands in pioneer days, building transportation systems, and encouraging regional or international trade and from more recent factors such as technological advances, governmental spending, advertising, and rapid population growth.

The fastest growing sector of private industry is research and development. An estimated tenfold increase in the number of workers employed in research and development has occurred during the past 40 years. Most of this expansion has been in the area of applied research and development rather than in basic research. Today about 5 to 10 percent of the estimated $13 billion devoted to research and development is spent for basic research.

Automated techniques, services, and machines can be expected to replace and relieve much manual and mental effort, yet their efficiency may also create serious problems of unemployment and relocation. How rapidly occupational patterns can change is illustrated by employment trends since 1920 in electrical work and railroad engineering: while the number of railroad engineers declined by almost 40 percent, the number of electricians increased by nearly 50 percent.

The scientific revolution can be expected to increase the demand for scientific personnel. Engineering, for example, is one of the most rapidly growing occupations. In 1900 about 1 industrial worker in 250 was an engineer; now the ratio is about 1 in 50. It is estimated that by 1970 engineering employment will reach 1.5 million or nearly double the 1959 figure of approximately 783,000. The prediction is that engineering employment will continue an upward trend.[7] The number of scientists in all fields was estimated at 300,000 in 1958 and 313,000 in 1959. This figure is expected to increase by 75 percent between 1959 and 1970. Mathematics and physics are expected to be among the fastest growing fields. The largest scientific professions, chemistry and biological sciences, also will grow rapidly, although less so than mathematics and physics.[8]

ORGANIZATIONAL DEVELOPMENT

Because economic growth is increasingly dependent on a purposeful investment in human beings, improvement in efficiency is a prime consideration in organizational development.* Included in organizational development are technology, managerial techniques, innovation, and improvement in the quality of the labor forces. The importance of innovations in efficiency is explained by Galbraith: "Innovation has become a highly organized enterprise. The extent of the result is predictably related to the quality and quantity of the resources being applied to it. These resources are men and women. Their quality and quantity depend on the extent of the investment in their education, training, and opportunity. They are the source of technological change."[9]

ROLES OF GOVERNMENT

In the eighteenth and nineteenth centuries economic growth in the United States was regulated by factors within the economy itself. Minimum although not unimportant assistance came from the federal government in the forms of its use of public land and its encouragement prior to the Civil War of the development of public utilities.

At the beginning of the twentieth century big business brought the government into the economy as a regulator of growth and as an enforcer of economic justice. The Interstate Commerce Commission, the Federal Trade Commission, and several acts of Congress designed to curb excesses in big business date from this period. In its extensive and active role in aiding the recovery of the economy during the depression of the thirties and the subsequent measures it took to prevent a similar occurrence, the government extended its scope in regulating the U.S. economy.

The important role of the government in determining the nature and extent of economic growth is acknowledged by most people, but the extent of federal influence upon the economy is not widely understood. Before World War I, for example, the total spending for local governments exceeded that for federal expenditures. Today the combined spending of local and state governments does not even closely approximate federal expenditures.

---

* For further discussion of this subject, see Chapter Four, which deals with the development of bureaucratic organizations, and Chapter Two, which treats increased specialization (pp. 19-20).

Modern scientific and technological advances also have led to increased spending by the national government. Ten years ago the federal government was spending a few million dollars a year on space projects. In 1962, this expenditure amounted to more than $3 billion, and significant increases are planned for the future.

The international dimensions of government are also important to economic growth. The cold war has heightened anxiety about the adequacy of the national rate of economic growth and about the balance between production of consumer goods and capital goods. In the present period of "no war, no peace," which may continue for the remainder of this century, the economy of the United States is significantly sustained by an annual federal expenditure of over $52 billion for defense. About 60 cents out of every dollar spent by the federal government goes for national defense.

A healthy volume of world trade also contributes to the vitality of the national economy and the maintenance of the rate of economic growth. The United States imports from other countries essential raw materials and some goods. U.S. dependence on the raw materials it imports will increase in the future. In addition, the flow of goods and services from the United States helps the economic development of other nations. This economic development enables other countries to purchase more goods and services from the United States. World trade directly and indirectly provides jobs and incomes for millions of American workers and farmers. A substantial decline in exports could have a depressing effect upon the national rate of economic growth and the economy in general.

Each generation assigns a somewhat different role to government. But the extensive and important role of the federal government in many activities cannot be easily reversed without a fundamental change in the philosophy and desires of the American people.

IMPLICATIONS FOR THE SCHOOL PROGRAM

The number of youths who will enter the labor market in the sixties will present a serious challenge to labor, management, government, and education. Already the unemployment rate among persons under 20 years of age is approximately 17 percent,[10] roughly four times the national figure. Yet the number of young people reaching 18 years of age *each year* will increase from 2.6 million in 1960 to 3.8 million in 1965, a rise of nearly 50 percent. During the 1960's an estimated 26 million young workers will enter the labor force, or 40 percent more than in the 1950's.[11]

►Students need to learn the knowledge, skills, and values that will qualify them to help meet the occupational needs of an urban-industrial society. More engineers, scientists, and technicians will be needed in the future. Shortages in these occupations that were first noted in the 1947 Steelman Report[12] are still evident.

Some educators have stated that mathematics and science are emphasized in the secondary school program at the expense of the humanities and the social studies. It would seem, however, that a more accurate analysis shows too little of both subject areas rather than too much of either is being offered in the average curriculum.

►The dropout problem must be ameliorated. Rising educational and training requirements for ever-widening areas of employment leave the dropout unqualified for anything but the least skilled types of work. The dropout is last to be hired, the first to be fired.

Guidance personnel need to inject economics as well as psychology into their counseling. They have the difficult task of helping youth match their vocational interests and abilities with the opportunities of a rapidly changing economy. Guidance personnel need to understand and keep abreast of changing vocational emphases so they can offer realistic and practical advice.

►Administrators should consider economic factors in proposing new programs for financing schools. The general state of the national economy together with regional and local factors may help school leaders to choose appropriate times for presenting bond issues and tax levies to the voters.

►Schools should accept responsibility for teaching economics in a well-planned kindergarten-through-grade-12 sequence. Students need to understand our economy, their relationship to it as consumers and workers, and the contributions they can make to the nation's economic growth.

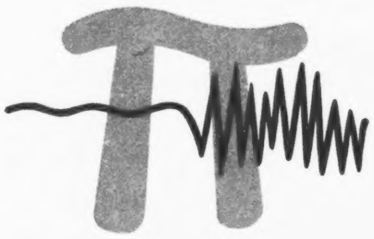
The school also fulfills an important role in helping students learn to make more intelligent consumer choices. The schools may provide the only unbiased education consumers encounter.

The neglect of economics in the instructional program may be attributed to a historical pattern of the American experience. Free enterprise and capitalism traditionally have stressed the importance of the individual. It is quite possible that the study of economics has been considered more a matter for the individual than for the group. On the other hand, in the American tradition teamwork and cooperation in social and political matters have created in the public schools a favorable climate for the study of civics and government, which Americans believe essential to good citizenship.

► Education can be regarded as a direct contribution to national economic growth. Economic growth is largely based on the effectiveness of labor which, in turn, is greatly dependent on improving education. When one is high, so is the other.[13] The increase in the educational level of the U.S. labor force which occurred between 1929 and 1957 accounts for between 36 and 70 percent of the increase in earnings per laborer, depending on which of the estimates of the rate of return is applied.[14]

The 1959 Staff Report of the Joint Economic Committee of Congress regarded more nearly adequate federal support for education as its "single most important recommendation for strengthening our economic growth."[15]

Clearly, education is an integral part of our economic future. A dynamic economy cannot be achieved, maintained, or expanded without a dynamic educational program.



CHAPTER FOUR

LARGE BUREAUCRATIC ORGANIZATIONS

The Nature of Bureaucracies
Effects upon Individuals
Implications for the School Program

Bureaucracies are by no means new. The ancient Chinese, the Persians, and the Romans developed effective governmental bureaucracies to administer their far-flung empires. But huge economic organizations and their accompanying bureaucracies are new. Giant corporations characterize our era, and the trend for them to become larger and for small organizations to fail is growing.

Two hundred industrial concerns produce over 37 percent of all our manufactured goods, for example—an increase of 7 percent in their output in seven years. The 50 largest companies are responsible for all of the increase! Firms with less than $1 million of assets decreased by approximately 4 percent in net worth during the 1952-57 period, while those with assets of over $100 million increased by 53 percent.[1]

Two developments have marked the emergence of large bureaucratized corporations. One is the specialization of personnel. The new executive is surrounded by a specialized staff and staff agencies—the accountant, the public relations man, the economist, the statistician, the market researcher, the operations researcher—devoted to supplying, interpreting, and condensing the information the executive needs to control his complex organization. The other development is this century's communications revolution. The telephone, telegraph, typewriter, radio, and now the computer make possible the liaison and coordination without which vast organizations of specialized parts would break down.

THE NATURE OF BUREAUCRACIES

Traditional bureaucratic organizations—government agencies, the Armed Forces during peacetime, public utilities—have some common characteristics. Units and subunits are fairly rigid in structure and function. Authority tends to reside in the office rather than the man. Each position has a more or less standard set of duties and area of authority. Offices operate under relatively fixed regulations designed to encourage accuracy, caution, punctuality, methodical procedure, and close coordination of activities.

There is a high degree of specialization of the functions and duties of individuals and units.

Procedures are generally formal and impersonal, especially in dealings between superior and subordinate offices. Each office is supervised "from above" by a higher authority. Levels of authority are arranged in pyramid fashion. Communications usually are recorded in forms generally stereotyped and ritualized, and the intrusion of "personal" elements into organizational activities is discouraged. There usually are standard provisions for promotion by seniority, tenure, annual-wage plans, pensions, and dismissal which are revoked only in instances of gross negligence or misconduct. Some provisions usually are made for promotion and salary increments in cases of exceptional merit, although such provisions are used rarely.

Social scientists also have identified a human relations and a professional type of bureaucracy. While retaining many features of traditional bureaucracies, they tend to be more effective when the tasks to be done are diverse and involve social skills. For example, commissions with broad discretionary powers, large graduate schools, and large research organizations differ from the more traditional bureaucracies in permitting warmer personal relations, fewer hierarchic considerations, less specialization, and less separation of policy from administrative decisions.[2]

The greatest advantage of bureaucracy is efficiency. Executives are able to plan for the future, since they can depend on the continued existence of the organization. They can expect obedience from subordinates, since lines of authority are clear. Because procedures are highly regulated, they can be fairly certain that orders will produce the results expected. Without such a bureaucratic structure, large organizations would have to be divided into small segments, each organized around a leader. Obviously, problems of coordination and cooperation among units would be considerable.

Lines of authority are not inviolable, however, and an informal structure exists which provides ways to get things done outside the formal structure. The informal structure accommodates the creative individual and adds flexibility to the bureaucracy. It is bureaucracy's tacit recognition that, despite bureaucratic formality, individualism continues to be important.

EFFECTS UPON INDIVIDUALS

Much has been written recently about the so-called organization man, the individual who buys the proper suit, says the proper thing to the boss, and believes the best way to get along is to go along. How much of this stereotype is true, and if true, is it good or bad?

The typical organization man is primarily interested in having job security, respectable professional affiliation, and some opportunity to move up through the ranks. While job satisfaction and personal creativity are important to him, they are often subordinated to security. The large organization can survive fluctuations in economy, it can provide greater security than the worker employed in a small organization or self-employed has, and it grows in proportion to the recognition and reward of talent and ability within its ranks.

The organization man must accept the necessity of getting along well with fellow employees. As activities become more specialized, coordinated and cooperative efforts among specialists become more necessary. In this respect, the individual needs to "get along to get ahead," a requirement that is less likely to apply to a man working for a small or relatively unspecialized organization.

The stereotype of the organization man probably has been overdrawn. Obviously, he must accept certain aspects of his employment. But beyond a degree of conformity, he has opportunities for more freedom and initiative than is generally credited to his bureaucratic milieu. Recently a recruiter of executives said that "more than ever before, industry is seeking men of originality with the courage to approach problems from an unorthodox standpoint."[3] In most situations, independent and creative activity depends primarily upon the individual.

IMPLICATIONS FOR THE SCHOOL PROGRAM

Bureaucracies influence our daily lives; that fact is obvious. Less obvious is the fact that they tend to influence the education of our children. But the central concern of American education is the individual child, how his abilities and interests can be served most effectively, and how his potentialities may be developed most fully.

►Parental pressure on the schools to emphasize social adjustment will increase. Parents expect schools to stress what they have found important, and "organization parents" tend to feel that success depends upon a combination of technical or managerial skill and proficiency in interpersonal relations. As employment in large organizations increases, so will this kind of pressure.

►Parental pressure on the schools to emphasize grades will grow as competition for college admission increases. This concern for grades may counteract the concern for social adjustment, but the emphasis on grades sometimes presents another demand to meet social and occupational standards rather than to strive for personal learning.

Other influences suggest that greater attention will be given to the individual despite the strong pressures for conformity. An expanding range of choices tends to enhance personal autonomy. Attention being given to creativity is an additional indication of emphasis on individualism.

►Increasingly specialized opportunities in large organizations are encouraging early concentration in a limited number of academic fields. For example, high school students planning to become industrial chemists will have a very difficult time with college courses in this field unless they have studied a concentrated basic program in mathematics and science in the secondary school. On the other hand, some large organizations are training greater numbers of their sales, service, and managerial personnel within the organization itself. This effort reduces the demand for specialization in secondary schools and colleges.

Some educators are concerned that this vocational emphasis may crowd out the subjects that provide general education that characterizes the broadly educated individual. The threat to general education may increase as life becomes more urban and industrial.

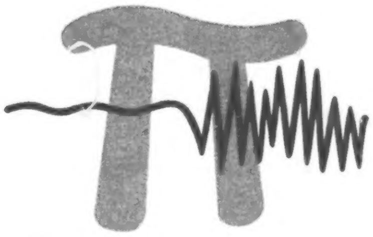
►School systems—like government and private industry—must face the problems of vast size and bureaucratic structure. But unlike government and industry, schools are interested in individual, not mass, results.

Principals sometimes find their functions limited by the central office, but as representatives of the system they become the target of teachers' resentment of policies from the central office. Three guidelines might help school administrators keep channels of communication open:

1. Principals should be accessible to students, parents, teachers, and the public. They should have enough autonomy so that, within the broad system structure, they can formulate policies with their staffs and develop activities appropriate for their schools.
2. Research affecting program decisions should be purposeful, and it should involve those who have responsibility for the program. Information gathering should not be permitted to become an end in itself.
3. In large school systems regulations are necessary, but red tape must not be allowed to impede action at the classroom level.

►Vocational guidance will become increasingly important. The growing number of vocational choices, the lengthening period of training, and the trend toward early specialization in addition to competitive college entrance requirements force students to consider vocational choices early in their high school careers.

The abilities and interests of the individual child remain the primary concern of education. In an increasingly complex and standardized society, school systems themselves are becoming more and more complicated and hence more susceptible to standardization as a way of simplification. But the tendency toward standardization may foster rigidity in structure and blandness in function.



CHAPTER FIVE

LEISURE TIME

Amount of Leisure Time Available
Expenditures for Leisure Time
Qualitative Judgment of Leisure
Implications for the School Program

A significant change in attitudes toward leisure has taken place since Benjamin Franklin (1752) wrote that "an idle brain is the devil's workshop." Men's lives in early America were only a little less strenuous than the lives of women. The Sabbath and occasional holidays offered practically the only surcease from ordinary work, a respite only partially realized by the farmer or the owner of a horse or a cow. Only gradually during the nineteenth and twentieth centuries was the working day shortened, primarily through the efforts of organized labor, to 10 hours, then 8. With the work week now averaging 40 hours or less, the working day is often less than 8 hours.

Today the American people stand on the threshold of an era that will bring more leisure to them than has been available to any other nation. The implications of this additional freedom are profound indeed. The whole relationship between work and leisure is undergoing a radical transformation. The decline in work can be expected to cause considerable upheaval in the institutions and in the morale of the Western countries. Clearly, education has an important role in helping to prepare youth to make worthy use of their leisure time.

AMOUNT OF LEISURE TIME AVAILABLE

The day may come when one no longer refers to "time off the job," but rather when one's leisure is punctuated by periods of formal jobholding rather than the reverse. In the immediate future, however, work—not leisure—will undoubtedly remain at the center of man's concerns.

Reports on the amount of free time available for leisure activities have been derived from statistics based on the work week. They tend to state something like this: "In 1850 the average male worked 66 hours per week; in 1960 he worked 33-40 hours per week; and the number of hours will likely drop to 20-30 by 1979." The implication is, of course, that all remaining time is free for leisure pursuits. But the amount of time *actually* available for leisure activities is another story, one which statistics do not tell.[1]

The tempo of work today is much different from what it was 100 years ago. The more leisurely, less standardized, and more informal working conditions of the last century are largely gone. An hour's work today is often more demanding, exacting, and mentally fatiguing than it was 100, 90, or even 25 years ago. This trend probably will continue.

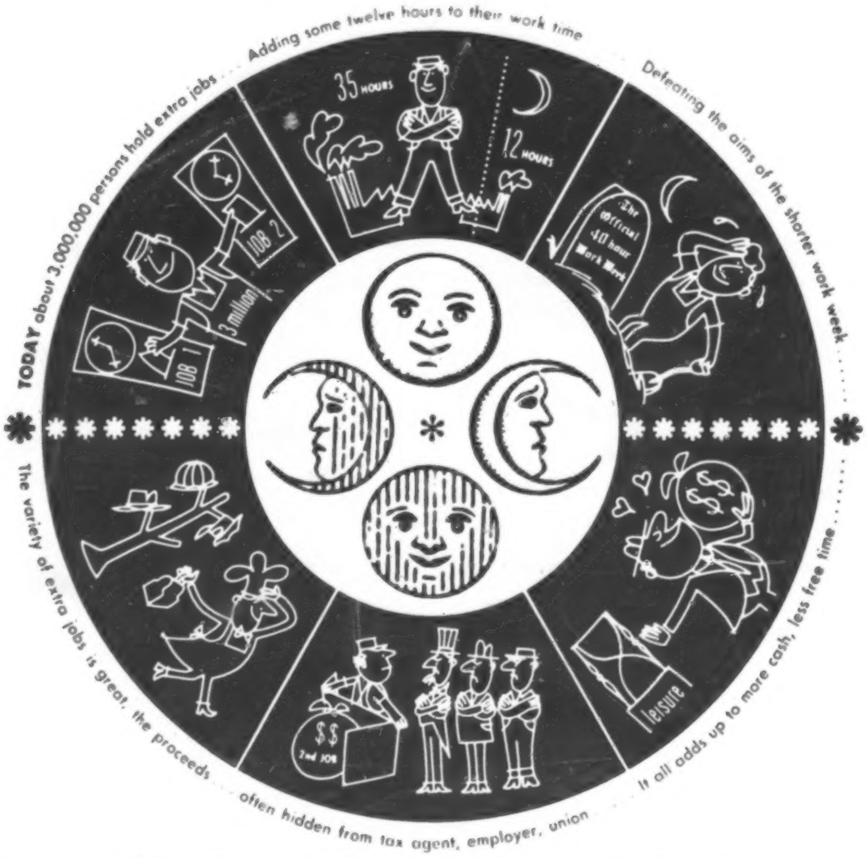
Commutation has cut significantly into time available for leisure activities. A round trip of 90 to 120 minutes is common for workers in every major urban area, and commuting time will increase as people move out to still more remote suburbs.

For certain groups of people, increased leisure time always has been something of a myth. Teachers, for example, work slightly less than 50 hours per week on school-related activities. Doctors, lawyers, scientists, and many executives and self-employed workers put in more than the 40-hour week reported for all Americans. The long working hours of mothers with young children are unreported in statistical studies, although they have considerable bearing on the total American leisure-time pattern.

"Moonlighting," or holding more than one job, has increased significantly in the past decade, and indications are that it will continue to increase in the sixties (see Figure V). An estimated 3.6 million individuals, or about 5.3 percent of all full-time employees, held more than one job in July 1957[2] as compared with 1.8 million, or 3 percent, in 1950.[3] Moonlighting is particularly prevalent among teachers: 8.9 percent of all teachers below the college level and 23.5 percent of men teachers had supplementary employment in December 1960.[4] An extensive study of 1,800 Michigan public school teachers found that 28 percent earned income from sources other than public school employment during the year 1960-61.[5] (About one half of the 28 percent worked during the summer.) Teachers usually hold a second job for one reason only: they need more money.

There has been a significant increase in the number of married women in the labor force. The result has been less leisure time for both husband and wife. In these circumstances, the husband usually helps with the work of the home. Statistics are

Figure V. Phases of Moonlighting


TODAY about 3,000,000 persons hold extra jobs . . .
Adding some twelve hours to their work time
Defeating the aims of the shorter work week . . . . .
It all adds up to more cash, less free time . . . . .
often hidden from tax agent, employer, union
The variety of extra jobs is great, the proceeds . . .
JOB 1
JOB 2
3 million
35 HOURS
12 HOURS
The Official 40 hour Work Week
$ $
2nd JOB
leisure

Source: Twentieth Century Fund. **Newsletter** 41: 4; Spring 1961. Drawings by Ajay.

not available on how much time husbands spend helping their working wives—time that would have been free for leisure activities if wives did not work—but it is reasonable to believe that one or two hours per day might be a fair estimate.

Obviously, we have considerably less free time than statistics indicate. The difference between time available for leisure in 1890 and 1960 comes down to a few hours per week. Furthermore, there is little difference between working hours in 1890 and during the Middle Ages, when the large number of holidays celebrated in the medieval period—between 100 and 115, exclusive of 52 Sundays—is taken into consideration.[6]

But while Americans do not have as much free time for leisure activities as is generally assumed, they do have more than they have ever had before and will have still more in the coming decade.

EXPENDITURES FOR LEISURE TIME

Before looking into how Americans spend their leisure time, some definition of terms might be helpful. Leisure may be defined as freedom from the necessity of being occupied; activity engaged in during leisure is performed for its own sake or as its own end. Free time, defined as time off the job which is not required for work-related or subsistence activities, is a quantitative dimension, while leisure is a qualitative one. If someone has to work, it means he is doing something not for its own sake but for money or something else; therefore it is not leisure. A man of leisure, however, may be intensely engaged in something an observer might call hard work. The difference is that the end or pursuit of the activity was chosen for its own sake.[7]

Some approximation of the amount of money spent for leisure activities (1956) may be gleaned from Table 1. The figures given, however, do not include estimated gambling expenditures, exclusive of pari-mutuel net receipts, or money spent on items such as private tennis courts or swimming pools.

A national survey asking individuals what leisure activities they had undertaken during the preceding day revealed that watching television was the most popular pursuit (see Table 2). Of each 100 persons, 57 watched television on the preceding day. Visiting with friends or relatives was the second most frequent activity for people under 40 years of age; for those over 40, working in the yard or garden took second place. Participation in sports, on the other hand, ranked in the top five favorite leisure activities only with teen-agers.[8]

Tables 1 and 2, while revealing and useful, do not tell the full story. For example, about two thirds of U.S. families spend their vacation time taking automobile trips that average 1,000 miles or

Table 1. Consumer Expenditures for Recreational Goods and Services by Type, 1956

Recreational goods and services	Amount (millions)	Percent
1	2	3
Theaters and entertainments	$ 1,550	12.4%
Motion picture theaters	1,298	10.4
Legitimate theaters, opera, etc.[a]	252	2.0
Spectator sports[b]	241	1.9
Clubs and fraternal organizations[c]	633	5.1
Participant recreation	1,097	8.8
Commercial participant amusements[d]	683	5.5
Pari-mutuel net receipts	414	3.3
Reading[e]	1,015	8.2
Gardening (flowers, seeds, and potted plants)	794	6.4
Radios, television, and musical instruments	3,198	25.7
Radio and television receivers, records, and musical instruments	2,442	19.6
Radio and television repair	756	6.1
Sports equipment[f]	3,020	24.3
Nondurable toys and sports supplies	1,410	11.3
Wheel goods, durable toys, sports equipment, boats and pleasure craft	1,610	13.0
Other recreational goods and services[g]	895	7.2
TOTALS	$12,443	100.0%

Source: Derived from the following: U.S. Department of Commerce. **Survey of Current Business.** Washington, D.C.: Government Printing Office, July 1957. Table 30, p. 21.

[a] Also includes entertainments of nonprofit institutions, except athletics.

[b] Comprises professional baseball, football, and hockey; horse and dog race tracks; college football; and other amateur spectator sports.

[c] Comprises gross receipts less cash benefits of fraternal, patriotic, and women's organizations, except insurance; and dues and fees of athletic, social, and luncheon clubs and school fraternities, except insurance.

[d] Comprises billiard parlors; bowling alleys; dancing, riding, shooting, skating, and swimming places; amusement devices and parks; daily golf course green fees, golf instruction, club rental, and caddy fees; sightseeing buses and guides; and private flying operations.

[e] Consists of 42 percent of Commerce Department estimates for "books and maps" and "magazines, newspapers, and sheet music." The remaining 58 percent is considered an expenditure for education.

[f] Includes games, toys, sporting, athletic, and photographic goods and related products, divided roughly between the two subgroups on the basis of durability.

[g] Comprises photo developing and printing, photographic studios, collectors' net acquisitions of stamps and coins, hunting dog purchase and training, sports guide service, veterinary service, purchase of pets, camp fees, nonvending coin machine receipts minus payoff, and other commercial amusements.

Table 2. Percent of Population Engaging in Various Leisure Activities "Yesterday,"[a] by Age

Rank	All respondents	Years of Age					
		15-19	20-29	30-39	40-49	50-59	60 and over
1	2	3	4	5	6	7	8
Watching TV	57%	56%	57%	56%	61%	56%	53%
Visiting friends	38	46	41	40	36	33	37
Yardwork and gardening	33	20	24	33	39	38	42
Reading magazines	27	31	29	25	25	23	27
Reading books	18	21	19	17	15	15	21
Pleasure driving	17	25	21	18	14	11	11
Playing records	14	35	16	14	10	6	6
Attending meetings	11	11	9	10	11	11	12
Special hobbies	10	11	9	10	10	12	11
Dining out	8	7	10	8	8	8	6
Sports	8	26	8	8	7	3	2
Playing games	7	12	7	6	7	5	6
None of these	7	3	7	8	7	8	9
Loafing	6	20	7	5	5	3	1
Musical hobbies	5	10	5	5	5	3	3
Spectator sports	4	7	4	4	4	4	2
Theater movies	3	9	4	3	3	2	1
Drive-in movies	2	6	4	2	2	1	0
Dancing	2	8	4	1	1	1	0
Theater, concerts, or opera	1	1	2	1	1	0	1
Lectures or adult classes	1	1	1	0	2	1	1

Source: Opinion Research Corporation. "The Public Appraises Movies." **A Survey for Motion Picture Association of America, Inc.** Princeton, N.J.: the Corporation, December 1957. Vol. 2.

[a] Day prior to that on which respondents were visited.

more driving.[9] More than 1 million Americans visited Europe in 1962. Evening and weekend drives, especially in summer, are leisure activities in some parts of the nation.

Interest in the arts is increasing rapidly. The extent of participation in amateur music groups is an example. In 1951 there were approximately 700 community orchestras and bands; in 1961 the total was 1,500. One third of all these community music groups had been formed in cities of 50,000 population or less.

In addition, there were more than 200 military service music groups, 880 Salvation Army bands, 1,200 college bands and orchestras, and uncounted neighborhood ensembles and jazz combos. The United States has more symphony orchestras than the rest of the world combined.[10]

Other figures are relevant. An estimated 25 million people attended boxing matches during a recent year. Also, $377 million was spent at the race tracks, and $8.9 billion was spent for alcoholic beverages. Contemplation of the figures in Tables 1 and 2, together with supplementary information, may lead to the following question: Are some forms of leisure activity more desirable than others, or is an individual's personal taste a satisfactory criterion?

QUALITATIVE JUDGMENT OF LEISURE

A critical problem—one closely related to the future of our nation—concerns not how much more free time will be available but what use will be made of it. Whether we shall be a society of free men or a mass-dominated community depends upon what we make of ourselves through leisure-time activities we are free to choose.

From the viewpoint of development of the individual and his potential contribution to the nation, leisure activities may be termed desirable if they advance the individual's freedom as well as his sense of social responsibility. Leisure may be classified in four categories:

Entertainment is the first category. It includes experiences based on tactual and gustatory feeling, such as eating and drinking, and on the senses of sight and hearing, such as spectacles and shows, exhibitions, spectator-sport events, movies, and television.

These forms of entertainment are subject to business organization and mass production. The role of the person being entertained is essentially passive because the source of the experiences is outside the individual and subject to external control. The spectator responds in ways that are largely patterned by instinct or prevailing custom.

A second category of leisure is *making* or "do-it-yourself." The practice of making things is often called a hobby. People spend their free time in knitting, weaving, hooking rugs, gardening, amateur carpentry, chemistry, and photography. The person who spends his leisure time making things expects to produce the results of his labor almost entirely through his own efforts. He works when and as he wishes for the sake of doing the work as well as producing a material result; the work has value of its own. He takes pride in the total product and enjoys a sense of personal satisfaction from its creation.

Play is a third category. In it, the agent acts against forces of nature or against the moves of an opponent. The sailor tacks into the wind or the fencer parries a thrust, but the activity yields no material product. It is, rather, enjoyed for its own sake. The purpose of the activity is to conquer contrary forces, but even apart from this, the activity has a satisfaction of its own. The mountain climber loves to climb even though he fails to reach the peak, and the chess player plays for the sake of the game and not only for victory.

Spiritual, social, and intellectual *fulfillment* is a fourth category. In handwork and play there is a dependent element of turning away from toil or routine for relief. Such restorative kinds of acts generally are not considered worthy of the total devotion of the individual. There are certain acts, however, which contribute to the creative activity of life itself and are, therefore, worthy of total devotion. They may be divided into four groups: artistic creation and appreciation, study and discourse, prayer and worship, and social service. An object that is lovely in itself is often considered more valuable than one which is only useful; the creation of a beautiful object may therefore be thought of as part of the creative spontaneity of existence. Understanding and appreciating such an object are functions of the individual and achievable by him alone.[11] No one can appreciate a work of art for another. This is also true of study and discourse. Having an intrinsic value of their own, these acts require overarching insight and must be freely chosen and spontaneously achieved.

Service to others and to the community is also a highly desirable form of self-fulfillment. In the tradition of ancient democratic Greece, responsible social concern and action are noble and necessary leisure activities.

The question is what uses will we make of the amount of free time available to us. Whether we shall be a society of free men or a mass-dominated community depends upon ourselves. Will it be possible to take the free time at our disposal and convert it into a truly profitable leisure?

IMPLICATIONS FOR THE SCHOOL PROGRAM

The worthwhile use of leisure time was listed as a major educational objective in the "seven cardinal principles" formulated more than four decades ago. The nature of our society makes this objective more important today than it was then.

►Students need to learn desirable attitudes toward leisure as well as learn how to use it effectively. Instruction in music and the arts, in reading, and in play should focus on these ends. Students who develop such fundamental understandings and skills in these areas will be more inclined to choose from them for leisure activities.

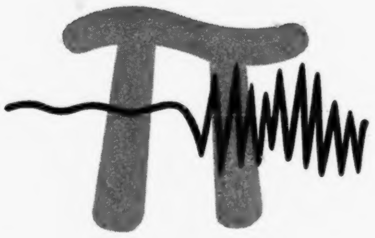
Special music, art, and physical education teachers are needed. Team teaching in these subjects can help stimulate students' understandings and appreciations.

►A good grasp of reading skills and wide experience in reading are particularly important in the elementary grades and should receive continuing emphasis at the secondary level. Teaching methods should be employed to ensure each child's continuous development at his own best rate.

►Physical education programs should combine big-muscle activities with the social aspects of physical and recreational activity. Especially at the secondary level, programs can be planned to develop interest in and knowledge of activities that can be carried over into adult life. Football, basketball, and baseball have important values in themselves, but they have little of the carry-over of tennis, golf, or bowling.

►Units on leisure and the use of free time are frequently taught in both elementary and secondary school. They might include a survey of how Americans spend their leisure, a section exploring the desirability of some forms of leisure activity contrasted with others, and an examination of various leisure activities suitable for individuals.

►Schools have the important responsibility of creating a "tone" or atmosphere conducive to developing creative and enduring intellectual attitudes and interests. Unless students learn to enjoy learning, acquire many skills of learning, and have sufficient opportunity to be self-directing and self-evaluating in their learning, few things will stimulate them to make other than passive uses of their leisure time.



CHAPTER SIX

THE MASS MEDIA, PARTICULARLY TELEVISION

Commercial Television
Educational Television
Implications for the School Program

The mass media now occupy more of the average American's time than any other activities except paid work and sleep—and "The Late Show" is challenging even sleep! Television now occupies about one-fifth of the average adult's waking hours.

Comic books, published a little more than thirty years, sell 1 billion copies a year at a cost of $100 million, which is four times the budgets of all public libraries and more than the cost of the entire book supply for both primary and secondary schools. Approximately 43 million people see motion pictures in theaters each week; about 50 million stay home and watch movies on television each night, so that a total of nearly 400 million people are movie viewers each week.[1]

The field of communications has been in a state of revolution since the advent of printing some 500 years ago, but the invention of radio and television has radically affected communication. The controller of the machine now governs the place and content of the message, its repetitions, and its emphasis. The new media are much more than the duplication of writing; they extend environment and tend to dominate leisure time. Much more than print, they offer themselves to manipulators and demand mass audiences and large organizations to sponsor and produce them.

A great deal has been written about the effects of mass media on behavior and attitudes. Although pronounced points of view can be uncovered taking almost any position on the affective nature of the mass media, there is a dearth of solid research evidence. But on the basis of what is known, the mass media appear to be less effective in changing attitudes than is popularly supposed.

Some striking changes in behavior, or perhaps in attitude reinforcement, can be attributed to the mass media. For example, the highly emotional and irrational response to the "phantom anesthetist" of Mattoon, Illinois, and Orson Welles' radio broadcast on the invasion from Mars illustrate that the mass media can have dramatic effects. On the other hand, less striking but more fundamental changes have been helped along by the mass media. For example, the majority of the daily newspapers have supported lower tariffs and freer trade.

But in contrast, an extensive, community-wide effort to make the people of Cincinnati more conscious of the United Nations produced no measurable change in attitude. For a six-month period in 1947-48, radio stations scheduled 150 spot broadcasts a week, the newspapers highlighted United Nations news, and hundreds of movies were shown. In addition, 59,588 pieces of literature were distributed, and speakers addressed 2,800 clubs. A survey conducted by the National Opinion Research Center found that opinions and attitudes had changed very little during this six-month period; "before" and "after" scores were quite constant. In September, 34 percent said they had heard of the United Nations veto power, and 7 percent could explain how it worked; in March these figures had changed very little—to 37 and 7 percent, respectively. The figures showed approximately the same amount of change in other facts and attitudes surveyed.[2] Mass media served to reinforce existing attitudes rather than to create new ones in this case. There have been comparable results from other studies.

Exaggerated and erroneous notions about the effectiveness of mass media date back to the extravagances in wartime propaganda that came to light following World War I. Exposés of the 1930's spoke of the "lords of the press" and the domination of the mass media by "special interests." The *de facto* concentration of the mass media in a relatively few hands gave some bases for fear. Many colleges established courses to study and analyze public opinion and propaganda during this period.

Recent mass media research is more sophisticated in methodology and analysis. Studies since World War II have taken into account the distinction between the *content* of the message and its *effects*. Earlier research tended to equate content with effect, saying in essence that if the content was bad its effect was bad also, and vice versa. In commenting upon the Smythe report, which found that nearly 3,000 acts of violence had been portrayed on New York television during the course of one week, Merton pointed out that "it cannot simply be taken for granted that violence on the screen is emotionally damaging to the spectator. When violence becomes conventionalized, for example, as in the well-groomed patterns of the Western movie, it may not cause the least distress or damage to children who know that the noble hero will irresistibly triumph over the black-hearted villains."[3]

The long-term impact of the mass media is probably more fundamental than the short-term effect. Many researchers believe that there may be a cumulative result not measurable in the usual ways. For example, some say that people may tolerate more cruelty as a result of continued viewing of certain types of television programs. Also, since some TV viewing replaces other more worthwhile activities, the medium probably represents a lowering of standards in general.

Few authorities deny their concern about the quality of many mass media offerings. Most people do not oppose raising the quality of the message conveyed by all mass media. The difficult problem is how to define quality and, once it is defined, how to achieve it. Mass media are geared to the desires and wants of the consuming public, and the patronage of the consumers is the primary concern of the advertisers who support most mass media, especially commercial television. People who work with the mass media contend that they are giving the people what they want. The critics contend that the objective of pleasing the people is really untested and that the tastes of the American people are not inflexibly pitched to the lowest common denominator. The people, they say, will accept higher standards.

There have been significant improvements in the technical quality and sophistication of the mass media during the past three or four decades, as a glance at an early movie or newspapers of 30 or 40 years ago will show. Improvement in taste and moral tone, however, is another matter, and little is evident in this respect. In fact, the emphasis on sex and violence, though possibly more subtle, is probably greater today than it was 5 or 10 years ago.

COMMERCIAL TELEVISION

One of the most remarkable success stories of this century is that of commercial television. The first commercially licensed television station began telecasting on July 1, 1941. In 1948 barely 100,000 television receivers were in use in the United States. By 1962 nine of ten electrically equipped homes had a set, making a total of about 50 million.

TELEVISION HABITS OF CHILDREN

While few "average" children exist and wide variations may be found among children within any age group, some generalizations about the length of time average children in various grades watch television may be useful. These figures are given in Table 3.[4]

Table 3. Average Hours of Commercial TV Viewing per Child per Week in Two Cities, by Grade in School

Grade	San Francisco, 1958-59	Ann Arbor, Mich., 1951
1	2	3
2	15.5 hours	15.8 hours
4	15.6	19.6
6	17.9	24.1
8	22.8	23.1
10	20.3	19.3
12	16.5	18.9

As the figures show, there is a gradual rise in TV viewing from the second until the sixth or eighth grade. Then viewing decreases until children in the twelfth grade are spending only slightly more time watching television than they did in second grade. The decrease in the upper grades may be related to additional homework as well as to the increasing competition television receives from other activities.

Differences in IQ of the children were studied. Before the seventh grade, there seemed to be no correlation between IQ and amount of time spent in TV viewing. After the seventh grade, however, heavy viewing correlated with lower IQ's.

Schramm found "nothing startlingly new" about the program tastes of children. Juvenile programs such as cartoons and puppet shows are gradually replaced by those emphasizing adventure, crime, family activities, and popular dance as the children grow older. Programs featuring cartoons, Walt Disney productions, and simple adventure programs dominate the first six school years; *77 Sunset Strip, Maverick, American Bandstand,* and *Peter Gunn,* the second six years. Boys maintain an interest in juvenile programs longer than girls do, but tastes of the two groups draw closer throughout the high school years.[5]

EFFECTS ON CHILDREN'S KNOWLEDGE

A study to determine the effects of television on accumulation of knowledge was conducted in two Canadian towns. One town had television, the other had not. It was found that commercial television apparently does provide children with an initial advantage in acquiring vocabulary skills, although this is chiefly true of the brightest and the slowest children, not the so-called average child. But this initial advantage is apparently exhausted by a repetitive diet of westerns, whodunits, and situation comedies. By the sixth grade and beyond, heavy viewers appear to have more knowledge on matters related to entertainment than do light viewers but less knowledge of public affairs and fine arts.[6]

An exhaustive study of British children revealed that television in the home offered neither a distinct advantage nor a severe drawback to school performance. Nor was television strongly associated with either overachievement or underachievement, although it appeared to be a hindrance rather than a help to the more intelligent children.[7]

EFFECTS ON CHILDREN'S BEHAVIOR AND ATTITUDES

Many parents believe that television contributes to the rise of juvenile delinquency and to what they consider the generally low morals of today's youth. Newspaper headlines that attribute acts of violence to television serve to heighten parents' alarm.

Too often television's many benefits are overlooked. A young lady may glean constructive ideas about personal grooming from watching television, and a young man may learn about manners—both what to do and what not to do. Programs can—and often do—provide models of courageous, honest, and sensible behavior which may have more influence than portrayals of undesirable actions. A substantial majority of viewers may be expected to identify themselves with characters representing virtue and law.

Television can also contribute to the intellectual growth of the individual, opening unknown worlds to him. Special programs on national and international problems as well as travelogues can provoke and excite young minds. While such special programs may be too few in number to suit some people, they should be recognized for their positive contributions.

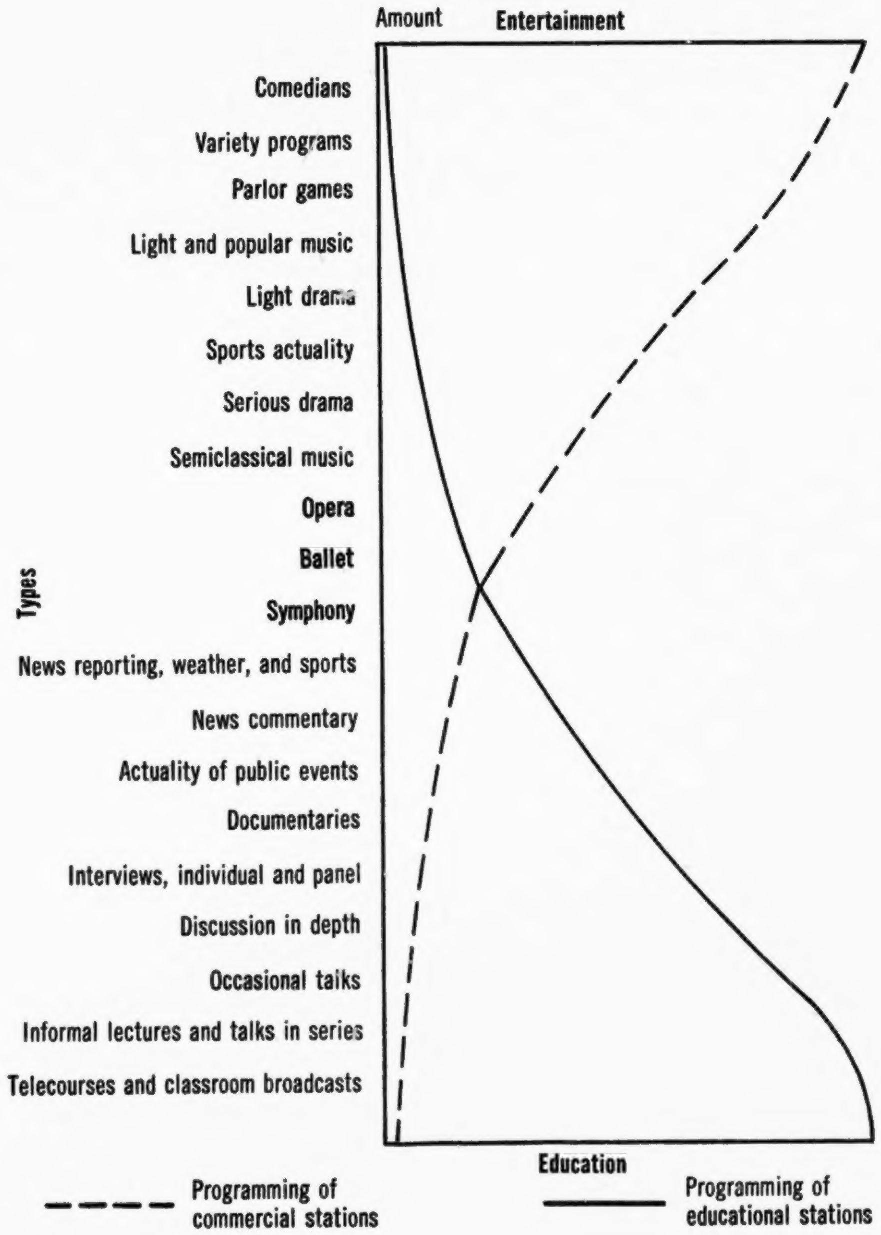
Wholesome relaxation and intellectual stimulation and appreciation are also to be had from a wide variety of programs. Other examples of beneficial influences of television could be given, but these few might serve to illustrate the importance of objective analysis of television in terms of both its strengths and its weaknesses.

Nevertheless, current television programming in general does raise serious questions (see Figure VI). Some researchers speak of the insidious erosion of cultural values and behavioral norms by television shows built upon violence, gray-area morality, and voluptuous femininity.

Television usually presents a distorted view of adult life. Many programs are caricatures of what might be considered "normal" life. Such erroneous images of reality could accentuate some difficulties in personal adjustment, particularly in the case of a child who does not relate well to other people.

There is scant evidence that television contributes to critical thinking and problem-solving ability. In fact, the general run of programs appears to reinforce nonthinking rather than thinking attitudes. Broadly speaking, television presents facts and infor-

Figure VI. Types of Programs on Commercial and Educational Television Stations Arranged on Continuum from Pure Entertainment to Formal Education



Source: National Education Association, Department of Audio-Visual Instruction and Department of Classroom Teachers. **And TV, Too!** Washington, D.C.: the Association, 1961. Figure 1, p. 15.

mation rather than analyses and evaluation; it tends to present black-and-white problems and their solutions. TV advertising seldom encourages a thoughtful approach to purchasing products!

Most studies indicate, and authorities believe, that the causes of delinquency are deeper and broader than television. A TV program may trigger an act of violence in rare cases, but television cannot be considered as the basic cause in such a circumstance.

EDUCATIONAL TELEVISION

The growth of educational television (ETV), like that of commercial television, has been spectacular. Although a few educational TV programs were offered on commercial stations as early as 1947, the first ETV station was set up in Houston, Texas, in 1953. By January 1960, ETV channels were on the air in 28 states and Puerto Rico, although only 62 of the 309 channels allocated by the Federal Communications Commission exclusively for educational use had been activated. Nearly 600 school districts out of approximately 40,500 reported regular televised instruction in 1960, compared to approximately 6 in 1954. In 1961, approximately 50 percent of all secondary schools reported using some television in some way for education.

Two types of programs relate to the school curriculum and may be considered educational, regardless of source. *Instructional* programs are designed to aid teaching. They are presented in an orderly and sequential arrangement, one building upon another. *Enrichment* programs broaden learning but are not pointed toward a particular course of study or presented in any particular sequence. Special programs on commercial television, such as *CBS Reports,*[8] may be considered in this latter category.

Four types of programs can be identified: (a) Television can be the sole teacher, in which case the rest of the necessary learning experiences must be provided entirely by the learner. *Continental Classroom* is an example. (b) Television can be used as a major resource for teaching. Most of the formal course presentation is made by broadcast, with the classroom teacher assisting by offering other learning opportunities. Most programs of the Midwest Program on Airborne Television are of this type. (c) Television can be used as a supplement for teaching. Broadcasts follow a course of study in a broad way and add learning opportunities that teachers find difficult, if not impossible, to provide. (d) Television can be used for observational purposes, providing students with closeup views. Dental and medical colleges as well as secondary schools have found this use of television very helpful.

STRENGTHS OF EDUCATIONAL TELEVISION

Educational television opens up new vistas and opportunities for experiences:

- Activities, programs, and exhibits are brought into the classroom. Several cities exhibit rare art treasures through television.
- Eminent public figures and scholars can be brought into the classroom. In this way, a small high school without a physics teacher can offer a filmed or taped course taught by a master teacher. Whether such a course is as good as one taught by a teacher in the classroom is often irrelevant, because the choice may be between a televised course and no course at all.
- Valuable in-service education of classroom teachers may result from the use of programs featuring outstanding teachers.
- New developments in content areas and new teaching techniques and visual presentations help to keep the teachers as well as the courses up to date.
- The careful planning necessary for a televised presentation usually helps the students to learn more material than do more conventional methods of teaching.
- Closeup views of objects and procedures can facilitate learning.
- Stimulation by provocative televised teaching results in greater use of library facilities, according to school librarians.
- Time and space are saved for more individualized teaching. Savings in personnel and space have been accomplished without sacrifice of quality of education in some school systems. Dade

County, Florida, for example, saved the equivalent of 27 teaching positions and 29 classrooms by using educational television. In some cities, the teacher time saved by the use of television in large classes made it possible to provide more individual instruction for slow and rapid learners.[9]

- Generally speaking, fewer discipline problems arise in ETV classes.
- Home and school come closer together as parents in many communities watch the programs their children study at school and come to understand the total instructional program. Home discussion often furnishes added motivation for learning.

WEAKNESSES OF EDUCATIONAL TELEVISION

There are also major weaknesses in educational television:

- The lack of face-to-face teacher-pupil contact is a real loss. Although some younger children may feel a closer relationship to a TV teacher than to a classroom teacher, direct contact between the teacher and child is essential.
- The informal, give-and-take atmosphere of small seminars cannot be created in a TV teaching situation.
- Abstract ideas are not yet effectively presented through television, although working abstractions such as those found in mathematics have been dealt with successfully.
- Formalized teaching methods such as lectures and demonstrations are overused. Too often, teaching methods are similar for audiences of widely differing ages and interests.
- Makeshift or inadequate facilities can appreciably weaken the impact of educational television, and most schools are not designed for TV instruction.
- Scheduling remains an unsolved problem in most systems, especially in those using open-circuit telecasts originating from ETV stations. For example, fifth grade arithmetic is not usually taught at the same hour in all elementary schools of a given school system, yet the ETV program can only be offered at one time on an open-circuit-channel arrangement. Where several

ETV channels can be operated simultaneously, as they are in Hagerstown, Maryland, the flexibility of educational television is increased substantially. An associated scheduling problem concerns how to fit a 30-minute telecast into class periods of varying length.

- Techniques of ETV presentation are still undeveloped. Too much of a "gee-whiz" approach is evident in some presentations. Gimmicks and showmanship have their place as attention-catchers, but excessive reliance upon them may obscure the main points of the presentation.

EVALUATING ETV EFFECTIVENESS

The vast majority of ETV studies has been concerned with measuring *information gained.* An important question, however, is at what point educational television is effective enough to justify the time and money it involves. One assumption, seldom questioned in experimentation, is that present conventional teaching methods are completely effective and therefore provide an adequate basis for comparison.

Most comparative studies of ETV and non-ETV situations have found no significant differences in the amount of information gained. Two reports have been made on studies which compared the effectiveness of ETV and non-ETV situations. In one report, 281 studies were reviewed; in the other, 393. Both reports reached the conclusion that no significant differences were evident.[10] Based upon work by Kumata, the research in the first decade of teaching by educational television might be summarized in the following manner:

Motivation of the student is an important factor in the effectiveness of instructional television. Superiority of educational television is reported more often in voluntary-audience than captive-audience situations.

The degree of subject matter preparation and integration of the program into the teaching process may determine the effectiveness of educational television. ETV superiority is reported more often at lower than at higher educational levels.

Production of the program is a prime factor. The findings seem to indicate that the level of difficulty of the message and the ability of the instructor or producer to clearly present it account for differences in results rather than ETV transmission itself.

The mode of presentation of information—through educational television or face-to-face teaching—exerts no measurable influence upon retention of subject matter.

Interaction is important in most learning, and talk-back facilities (two-way educational television) are not a substitute. However, the presence of such facilities does give students reassurance and greater willingness to undergo the TV experience.

Student attitudes toward educational television and toward subject matter have a great deal to do with how effective instruction is. However, attitudes toward educational television and the amount of learning, as measured by achievement tests, are not related. If they were, the ETV student should learn less, since he often has a negative attitude toward the medium or conditions associated with it, such as the scheduling of programs and the physical setting of the room.

Highly motivated adult education audiences are important to the success of educational television. When adequate cost figures are available, they may show that credit courses for adults can cover the cost of operating an ETV station.[11]

Educational television is a major resource which can assist the teacher in providing students broad and rich experience. Although a few educators once feared that the TV set would replace the teacher, nothing is further from the truth. Effective educational television requires a partnership between the teacher in the classroom and television. The attitude of the teacher is vital. If television is approached seriously, with advance preparation and adequate follow-up, it can broaden the horizons and interests of both the class and the teacher.

As a major resource, educational television deserves serious attention and consideration by the teaching profession. Rather than threaten the status of teachers, educational television can significantly increase the status of and respect for the teaching profession.

IMPLICATIONS FOR THE SCHOOL PROGRAM

The products of mass communication are as much a part of our environment as the air we breathe. Their current status has important implications for education.

►Students should study mass communications and propaganda analysis in elementary and secondary schools. The focus should be upon critical inquiry into the role, importance, and use made of mass media. Discussion needs to be based on evidence rather than opinion and to include both the desirable and the undesirable aspects of mass communications.

A special unit of study on the mass media lies primarily within the realms of social studies or English classes; yet the development of good taste, objective attitudes, and analytical thinking in connection with all the mass media, including commercial television, is the task of all teachers. Some contact with the literature on mass media should be offered during the teacher preparation program, probably as a part of course work in social foundations.

►Educational television is prompting or expediting re-examination of basic learning theory and is challenging several commonly held assumptions about learning. The belief that accumulation of knowledge takes place best when there is interaction between the learner and the teacher, for example, is questioned by some ETV research. At the same time, the value of accumulation of knowledge per se is being brought into question by recent research in the structure of knowledge and ways of knowing.

►Instructional practices should be reviewed and reconsidered. As educational television is used for teaching large groups, better ways need to be found for providing more time for teacher planning and for working with small groups and the individual student. Team teaching and teacher assistants can be of value in this respect.

►One of the 33 recommendations developed by the Project on Instruction concerns an instructional materials center. It states—*In each school system, there should be one or more well-planned instructional materials and resources centers, consisting of at least a library and an audiovisual center. In each school building, there should also be an instructional resources facility.*

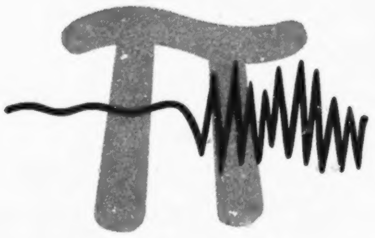
These centers should be staffed by persons who are adequately prepared in curriculum and instruction, in library service, and in audiovisual education.

►A second recommendation is addressed to printed materials: *A comprehensive study and action program is needed to improve the quality and use of printed teaching materials and other instructional media. Such a study and action program requires the participation of both the producers and the consumers of these instructional materials and media.*

Producers of instructional materials need to pay attention to the individual student's progress. Too often materials are geared solely to grade levels. Much progress has been made in developing sequential reading programs in terms of basic reading skills, but these advances are not always reflected in instructional materials. Also, the content of many basic readers is bland and uninteresting.

►A third recommendation by the Project on Instruction focuses upon educational television. It states—*The use of educational television (ETV) and radio to broaden and deepen learning should be encouraged. Such use should be accompanied by a vigorous program of research and experimentation.*

Traditional views on the role of the teacher in the classroom are being challenged by some ETV research. Educational television offers important opportunities to elementary and secondary education and to in-service and teacher preparation programs. Having survived early exaggerated claims by its enthusiasts and forebodings of doom by its critics, educational television will very likely experience steady, rapid expansion and improvement in the coming decade.



CHAPTER SEVEN

URBANIZATION

Characteristics of Urbanization
Two Dimensions of Urbanization
Educational Problems of Urbanization
Implications for the School Program

The supercity, or megalopolis, of the East Coast of the United States stretches from Boston to Washington (perhaps by now from Portland, Maine, to Norfolk, Virginia) and has an average density of close to 700 inhabitants per square mile. One of the most densely populated areas in the world, except for some lowlands in Asia,[1] the East Coast supercity contains more than 30 million people, about one sixth of the nation's total population crammed into one twenty-fifth of its area.

Seven of ten Americans live in cities, and one of five lives in the metropolitan areas of New York, Chicago, Philadelphia, Los Angeles, or Detroit. Not only do the problems of urban society touch most Americans daily but they have a great deal to do with the nation's future, both internally and as a world power. How to live with urbanization and how to marshal our human and material resources to improve it are urgent and difficult problems.

CHARACTERISTICS OF URBANIZATION

Every city is different, but all have much in common. Commercialized, complex, concentrated, diverse and stimulating, mechanized, and specialized, the city and its environs are home for most Americans.

Since the beginning of the Industrial Revolution, when more manpower became necessary to run the factories, men have been migrating to cities in search of economic opportunity. Urbanization has been the indispensable partner of industrialization—the measure of its growth, the mirror of its complexities, and the interpreter of its values.

Complexity is a distinguishing characteristic of the urban situation; social issues in urban areas are so intricate that citizens are discouraged from trying seriously to understand them. City-hired experts solve the problems—problems that often cannot be easily simplified for the public—and lethargy on the part of citizens is encouraged further.

This condition is true for education also. An extensive study of citizens' attitudes toward school problems is finding that the complexity of most educational issues is instrumental in discouraging citizen interest in school affairs.[2]

Variety, movement, and turmoil are other common characteristics of the city. Although much of the resulting stimulation has value, some has not. The city dweller is bombarded from morning to night with a profusion of sharp stimuli which have confusion as their most distinctive feature. The confusion seems to have no pattern or unity of meaning.[3]

Population concentration provides the milieu for improving the cultural level of Americans. With commercial, amateur, and public cultural offerings available to him—museums, art galleries, bookstores, theaters, and symphonies—the urbanite can choose from a variety of cultural opportunities.

A heterogeneity of beliefs and values accompanies the diversity of occupation, economic status, and racial or national backgrounds which is found in cities. The city's diversity may also deter strong unity and group action. Some urban areas have resisted regional school arrangements that could provide benefits for all, just as some small local school districts have resisted consolidation.

An almost unlimited variety of machines now reigns supreme in urban areas. The new techniques of automation and the growing use of computers indicate that the city of the future will be even more machine-oriented. The economic implications of automation will be profound indeed, but the social implications are at least as important.* While many important personal and national advantages derive from mechanization, care must be taken that efficiency and ease in themselves do not command admiration beyond their worth.

---

* The NEA Project on the Educational Implications of Automation is exploring this area. Their 1962 publication, *Automation and the Challenge to Education,* explores the role of educators in helping to close the gap between scientific progress and social adjustment. Also see their 1963 publication entitled *No Room at the Bottom.*

The jack-of-all trades is not likely to succeed in the city; one needs to specialize to compete successfully. But the specialist cannot neglect areas covered by the generalist and concentrate exclusively on his specialty. Rather he must provide himself with a generalist's wide background and specialized training in addition.

More and usually better goods and services result from specialization. In some professions specialization can take place only when there are large concentrations of population. Medical services and legal counsel in large cities are examples. But specialization also contributes to the compartmentalization and fragmentation of life; it may contribute to a diminution of communication and to the development of pressure groups.

The tendency to generalize about cities is tempting. Often the generalization condemns the current situation and reflects nostalgia for the good old days when life was simpler. Such nostalgia may be valuable as a catharsis, but it has little bearing upon reality. The values of the old ways come to mind when one visits the restored eighteenth-century village of Williamsburg, Virginia—a *gemeinschaft* type of community—a simple, folk-type settlement emphasizing tradition, primary relationships, and an undifferentiated economy. In the Williamsburg of 200 years ago, there were no cars, chaotic stimulation, five o'clock rushes, or crowded streets. But there was also no sophisticated medical science able to save the more than one third of the infants who died during their first year; there were no laborsaving devices to make life less burdensome; and there was no escape from the sometimes oppressive heat of summer.

TWO DIMENSIONS OF URBANIZATION

The trend of moving to the city has reversed itself in recent decades. The city is still the focus of occupational and cultural efforts, but increasingly it is being deserted in favor of outlying areas, especially as a residential area.

The mass exodus to a "piece of green" started in earnest shortly after World War II. By the mid-fifties it was a torrent. Between 1950 and 1960, the suburban areas gained population four and one half times faster than did the central city.[4] Three factors have been instrumental in bringing about this dramatic change: The rapid growth of automobile transportation opened access to many new suburban areas; wartime savings and G.I. loans allowed former servicemen to purchase homes; and the growth of industry in the suburbs pulled many workers from the central city to outlying plants.

In 1950, 70 percent of the urban population was in the central cities and 30 percent, in the fringe areas. By 1960 the ratio was 60 percent to 40 percent. This pattern was particularly strong in the older cities of the East. Boston, New York, Philadelphia, Baltimore, Washington, Pittsburgh, Detroit, and Cleveland all lost population during the 10-year period, but growth in surrounding suburbs was so great that there was a net population increase for the metropolitan areas as a whole.

Today one of every six people in the United States lives in a suburb. In part, the flight by the middle socioeconomic group has been an escape from changing neighborhoods, inadequate public services, and poor schools. But the movement is and has been more than an escape. For some, the piece of green represents the satisfaction of ownership, an opportunity for dignity and freedom not possible in the crowded city. Others consider suburbia the best of both worlds—the big city and the small town.

Frequently the move to outlying areas has imposed new difficulties. New neighborhoods require heavy initial outlays for water systems, sewage and disposal plants, schools, roads, fire stations, and police headquarters. Often facilities are overcrowded almost as fast as they are completed, and suburban capital-improvement programs go on endlessly in an era of the highest building costs in the nation's history.[5]

Some new communities have developed relatively unique patterns of informality and togetherness like those reported in *The*

Organization Man.[6] Residents in other new suburban communities put up fences and behave much like "normal" city folks anywhere.

Generally speaking, the suburbanites have small children, are young, in a middle-income group, and upwardly mobile. Many are heavily obligated by installment payments and a mortgage. Some are caught in the "split-level trap," but their living conditions and public services are better than they would be in the cities. There are stories of frustration and boredom among suburban housewives, but a survey of downtown residents of similar age, occupation, and income very likely would uncover as much, if not more, discontent. The frustrations and boredom are too complex to be attributed only to suburbia.

THE CENTRAL CITY

The pattern of the central city changes as one moves outward from the core or central business district. Growth tends to take place in concentric circles, although this pattern does not apply to some large cities. Zone I is the downtown business district, the center of economic, social, civic, and political life. Zone II is a zone of transition, an area characterized by physical deterioration revealed in bad housing and poverty and by social disorganization manifested in family disintegration, delinquency, and crime. Zone III consists largely of independent workingmen's homes, mostly two-flat dwellings. Zone IV, in which the middle class professional group lives, comprises better residences; and Zone V is the commuters' zone, called suburbia, where the more expensive homes are found.[7]

The most crowded and obsolescent urban areas usually rank lowest in income and property values. These areas must make a much greater relative effort to meet the pressures of urbanization than less densely populated, better-off sections. Their expenditures, simply to maintain existing services, increase faster than their tax resources. Even though more income is distributed for public purposes in these areas, the expenditure does not produce services that compare with those in wealthier sections.

Slum areas, in fact, are caught in a vicious circle. Middle class people leave, drawing off both leadership and money. Then fewer and poorer social services can be provided. Consequently the neighborhood declines further, prompting further exodus, further impoverishment, and another downward turn of the cycle.

In earlier years, when living conditions in slums were as bad as or worse than they are today, strong family ties, strong church connections, and expectations of future success kept these areas from being social jungles. Today church and family ties are weaker than was the case a few generations ago. The dwindling demand for unskilled labor has dimmed the hope of economic opportunity.

The culturally deprived or disadvantaged youth—about 10 percent of the entire secondary school population are thought to fit this description—recently has received national attention, although he is by no means a phenomenon of the present decade. One might compare the 1937 report of the American Youth Commission of the American Council on Education entitled *How Fare American Youth?* with the 1961 report by James B. Conant, *Slums and Suburbs.* The 1937 report, involving national economic problems rather than those of urban areas in particular, was an alarming account of extensive unemployment; approximately 40 percent of the young people between 16 and 24 years of age were out of school and unemployed. Many had serious health problems besides.[8]

The unemployment statistics of 1961 present a disturbing picture. The national unemployment rate for people under 20 years of age was approximately 17 percent,[9] roughly four times the national unemployment figure. But in some slum areas today, over 50 percent of the male youth are out of school and out of work.

The 1937 Commission called upon the people of the United States to unite in an effort to help unemployed youth become what they had both a right and an obligation to be—full-time workers, responsible members of their families, and constructive members of their communities. The Conant Report made a similar plea.

EDUCATIONAL PROBLEMS OF URBANIZATION

Two faces of urbanization—the suburbs and the slums—present profoundly different educational problems. In almost any major city in the United States, one can find suburban schools that have a low student-teacher ratio, 75 to 90 percent of the graduating class college bound, and fine equipment and facilities. Only a few minutes' drive away are slum schools that have large classes, major discipline problems, high dropout rates, few students interested in college, and very inadequate space and equipment.

THE CENTRAL CITY[10]

As the urban area becomes more stratified and segregated socially, ethnically, and racially, children attend schools that are more homogeneous—socially, ethnically, and racially.

The Detroit Area Study of family incomes indicates the growing economic stratification and the increasing relative wealth of the suburbs. Between 1951 and 1959, for example, the median real income for families living within six miles of the Detroit central business district rose 3 percent to a total of $3,800, but the cost of living rose 12 percent. The median income for families living between the six-mile radius and the city limits rose 5 percent in real income to a total of $6,000; and the median real income for families living in Detroit suburbs rose 37 percent in real income to a total of $7,200.[11]

Thus the central city grows poorer and sinks lower on the socioeconomic scale, while the suburbs grow richer and become more dominantly middle class—and the schools reflect the change.

Increased racial and ethnic segregation is evident also. In New York City, for example, the city schools lost about 15,000 white pupils per year to suburban school districts from 1953 to 1958. Negroes formed 22.8 percent of the city school enrollment and Puerto Ricans, 16.1 percent. Segregation in individual schools was evident. Out of 700 elementary and junior high schools, 392 reported (1960-61) having 85 or 90 percent students of one group

(Negro and Puerto Rican) or another (white).[12] Only one school in five could be called integrated in the sense that fewer than 90 percent of its pupils were members of one racial or ethnic group.

Population shifts are aggravating the racial problem. In 1961, 35 percent of Newark's population was nonwhite; in 1940, 11 percent. Between 1950 and 1958 the city's nonwhite population rose 110 percent, and the white population fell 25 percent.

In other major cities, similar increases in the nonwhite population took place between 1940 and 1961. In New York, the nonwhite percentage rose from 6 to 13 percent; in Chicago, it increased from 8 to 20 percent; in Los Angeles, from 6.5 to 14 percent. Often spectacular rises occurred in just a few years. Chicago's nonwhite population increased 40 percent from 1950 to 1956, and Los Angeles' increased 45 percent. San Francisco's grew 33 percent from 1950 to 1954, and Cleveland's increased 40 percent from 1950 to 1957.

Chicago's population is expected to be one third Negro by 1970, and that of Manhattan Island is expected to be 45 percent Negro and Puerto Rican. By 1990 it is predicted that in 10 of the 14 largest American cities, nonwhites will comprise from one fourth to one half of the total population.[13] The "race problem" is moving from the rural South to the urban North.

Racial and economic stratification causes school segregation, which leads in turn to increased racial and economic stratification. In deciding where to live, most parents look at the schools. Havighurst has used the term "critical ratio" in discussing the point at which middle class parents are likely to seriously consider removing their children from a school. When the proportion of middle class children in the school drops below about 30 percent, parents begin to consider moving out of the neighborhood. When they do, the school soon ceases to be a mixed one.[14]

IMPLICATIONS FOR THE SCHOOL PROGRAM

The importance of the school in urban development is being increasingly recognized by planners. Not only can the school provide leadership in planning and carrying out urban redevelopment but the quality of the school is a critical factor in maintaining the community's ability to keep middle class families from moving to the suburbs.*

►One of the 33 recommendations developed by the Project on Instruction pertains to culturally deprived youth. It states—*The schools can help to combat such serious national problems as youth unemployment and juvenile delinquency by (a) evaluating the intellectual and creative potential of* all *children and youth in the schools; (b) identifying early the potential dropout and delinquent; (c) developing positive programs to challenge these young people to educational endeavor; (d) participating in cooperative programs with parents and with community groups and organizations—business and industry, labor, service groups, government agencies, and the many youth-serving agencies.*

Pupils in dominantly lower class schools achieve less than pupils in mixed or middle class schools. This difference in achievement is due primarily to the lack of intellectual stimulation at home and in the neighborhood as well as to unrealistic curriculums and to teachers who possess what are called middle class values. In a survey of a city of 500,000, it was found that two middle class schools (29 percent of total enrollment) produced 63 percent of the talented students; the three lower class schools (43 percent of enrollment) produced 10 percent.[15] In sum, schools dominantly made up of children from lower class circumstances contribute to a waste of talent that our nation can ill afford.

Remedial measures are urgently needed. A report of six different programs might be helpful:

---

* The National Education Association, with a grant from the Ford Foundation, started Project: School Dropouts in September 1961. This three-year effort is focusing upon consultation, recommendations, and clearing-house services related to the school dropout problem. The Project also is helping to arouse greater public interest in and discussion of the difficulties presented to communities by a high rate of dropout and consequent unemployment. It seeks to establish the role of the schools in serving the educational and vocational needs of unemployed out-of-school youths between the ages of 16 and 20.

1. Some cities are providing special assistance to primary grades in slum areas on the premise that home environment in the slums is not conducive to good school performance. These programs use specially prepared teachers in relatively small classes and a social worker who is employed as visiting teacher to bring the home and school into contact.

One such program in a Philadelphia elementary school is seeking to motivate parents to assume increasing responsibility for the solution of family, community, and school problems and to develop their interest and understanding of democracy through coordinated effort by the school and all other social agencies. The program also seeks to identify and meet the special cultural and social needs of the families in these communities; to raise pupil achievement; to provide opportunities for children to achieve recognition, security, and a sense of belonging; and to decrease juvenile delinquency.[16]

2. Enrichment programs—as the Higher Horizons Project in New York City has dramatically demonstrated[17]—can provide children from lower class homes with intellectually stimulating experiences that are relatively common in middle class homes, such as visits to museums, libraries, theaters, and concerts. Additional staff are employed to plan and conduct this program and work with parents.

3. Nursery school programs for children (ages 3 or 4) from lower class homes can provide intellectual stimulation at a crucial point. At this age, basic language patterns are learned which probably have a significant bearing upon structuring the mind.

4. Special talent search and development programs are desirable at the junior and senior high school levels. These should go beyond gathering evidence from the usual verbal- and abstract-oriented testing programs, which often handicap those from lower class environments.

5. Work-study programs for maladjusted youth at the junior high school level can be helpful in providing an opportunity for alienated youth to grow up satisfactorily through the avenue of work.

6. Some cities have developed special preprimers to meet the needs of culturally deprived youngsters. The Detroit schools, for example, have published three that are half as long as the usual preprimer and illustrated in full color. The characters who appear represent different races, and the story situations endeavor to lead the children early into the mainstream of American culture, whether they come from standard or substandard homes.

Improving lower class school conditions is an important step in improving their effect upon children, but as long as a process of economic and racial segregation continues such a program may be handicapped from the start.

►The passing in many large urban areas of the comprehensive high school variegated in socioeconomic classes has gone largely unnoticed by educators, yet its disappearance raises serious questions. If the comprehensive high school was an important laboratory for democracy—as John Dewey, Henry Steele Commager, and many others have believed—then its passing must be viewed with some alarm. Will there be more rigidity in the vertical social class structure? Will there be increased class consciousness? Will the lower class schools be able to develop the young people who will be needed as the United States moves ahead?

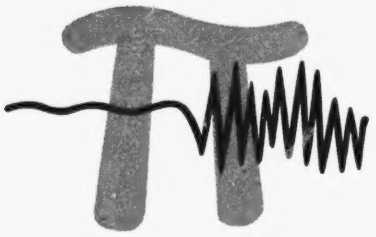
Social urban renewal is one long-range approach suggested by urban sociologists. True renewal is not accomplished by low-cost housing, which perpetuates economic segregation. Social urban renewal might develop communities that have a residential cross section of socioeconomic classes. These communities would be relatively self-sufficient units of between 50,000 and 200,000. If mixed schools of good quality were maintained, middle class families very likely would be less eager to leave the advantages of the central city.

Intelligent city planners, wise community leaders, and perceptive educational leaders can find the way to all-class communities and mixed-class schools. In referring to the disadvantaged student, the 1962 report by the NEA Educational Policies Commission on *Education and the Disadvantaged American* states—"The need to face the problem is generally accepted, for the disadvantaged return society's indifference in a form to which the society cannot remain indifferent. Their lack of opportunity is expressed in incompetence and in misdeeds for which the rest of society must—and does—pay. American cities today spend more for indigence, delinquency, and crime than for education. But the society has not yet demonstrated a willingness to deal with the problem thoroughly enough at its roots to avoid the continuing necessity of dealing with its manifestations."[18]

►Mumford makes note of the growth of irrational conduct in the city amidst a meticulous, mechanized order. To arrest this phenomenon, the humane and rational elements in behavior need to be more fully incorporated into the organization of both school and city.[19] The 1961 report of the NEA Educational Policies Commission on *The Central Purpose of American Education* states—"The individual with developed rational powers can share deeply in the freedoms his society offers and can contribute most to the preservation of those freedoms. At the same time, he will have the best chance of understanding and contributing to the great events of his time. And the society which best develops the rational potentials of its people, along with their intuitive and aesthetic capabilities, will have the best chance of flourishing in the future."[20]

In setting up special programs for disadvantaged students, care must be taken that intellectual content is not passed over lightly enroute to vocational education. All students should be taught, to the limit of their capacity, how to learn and how to think critically and rationally. They should achieve reasonable mastery of the basic tool subjects. For instance, disadvantaged students should be taught science as well as science appreciation. While the science concepts taught might be simplified, students should learn the fundamentals of science even if this takes more time.

The problems of big cities are complex and difficult, yet solutions are possible. Some are under way. The American people can no longer afford to prune the branches while the tree dries up at the roots. Nothing less than a concerted and bold attack upon the problems will do.



CHAPTER EIGHT

POPULATION GROWTH

Historical Perspective on Population
Patterns of Growth
Projections of School Population
Implications for the School Program

A huge electric clock and chart in the lobby of the Department of Commerce building in Washington, D.C., tell the story of U.S. population changes. There is one birth every 7.5 seconds and one death every 19 seconds; one immigrant enters every 1.5 minutes, and one emigrant leaves every 23 minutes. We have a net population gain of one person every 10.5 seconds, more than 8,000 people every 24 hours, or about 3 million every year. If current patterns of growth continue, the U.S. population will rise to 200 million by 1966.

Yet population in the United States is growing more slowly than it is in many countries, especially in the newly emerging nations. The Arab States, with a population of over 50 million, are an example. The net rate of increase is approximately 2 percent each year, which means an additional 25 million people will need food, shelter, clothing, and education in the next 20 years.

Thomas Malthus predicted about a century and a half ago that population would tend to outrun the means of subsistence and that the masses of mankind would be doomed to increasing misery. Although some of Malthus' basic premises are no longer valid in view of scientific and technological developments, the real test of the Malthusian theory may yet come. A comprehensive study of world population published by the United Nations pointed out that 200,000 years were required for the world's population to reach 2.5 billion but only 30 years will be needed to add another 2 billion. At the present rate of increase, in 600 years—little more than the time since the discovery of the New World—each human being will have only 1 square meter to live on. The survey concludes: "It goes without saying that this can never take place; something will happen to prevent it."[1]

The declining death rate is a major factor in the "population explosion." The United States and Canada have an infant mortality rate of about 26 in 1,000 live births. No technical reason prevents countries now having a mortality rate of 100 in 1,000 live births from reducing their rate to ours.

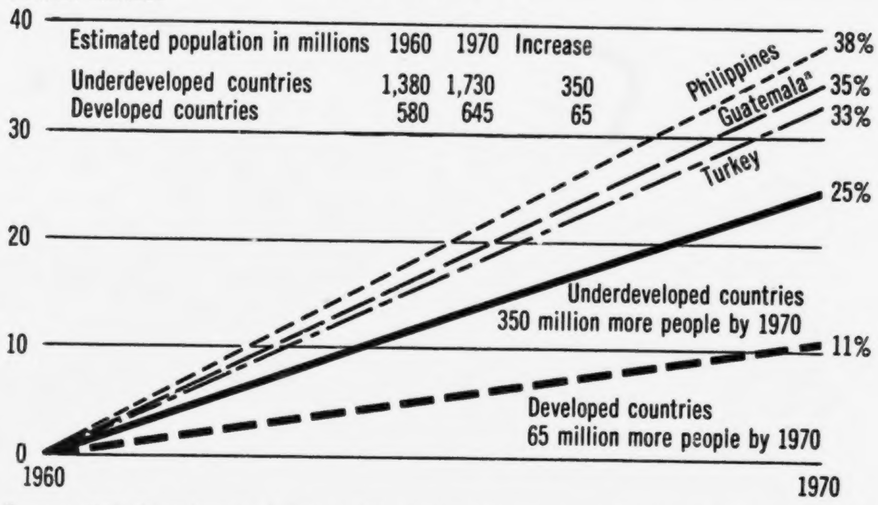
The difference between the "have" and "have-not" nations is being increased as our means of supporting and saving life improve (see Figure VII). India's Prime Minister Nehru has said that the most important division of the world is not the division of the cold war or of politics but the division that is caused by the widening gap between the living standards of the less developed and the more developed countries.[2]

HISTORICAL PERSPECTIVE ON POPULATION

America is often called the land of immigrants. Often arriving without money, friends, or knowledge of the English language, they brought dynamism, diversity, optimism, manpower, and countless problems to the American scene.

They came in three great waves. The first, during the 1840's and 1850's, brought immigrants chiefly from the British Isles, especially Ireland, and from northwestern Europe, including Germany. The second, during the post-Civil War period of industrial expansion, continued to draw heavily on northwestern

Figure VII. Percent of Population Increase in Developed and Underdeveloped Countries, 1960-70



Estimated population in millions	1960	1970	Increase
Underdeveloped countries	1,380	1,730	350
Developed countries	580	645	65

Source: U.S. Department of State, Office of Public Services, Bureau of Public Affairs. **A New Program for a Decade of Development for Underdeveloped Areas of the World.** Department of State Publication 7190, General Foreign Policy Series 165. Washington, D.C.: Government Printing Office, May 1961. p. 12.

[a] Guatemala, Philippines, and Turkey are examples of countries undergoing a very rapid rate of population increase from 1960 to 1970.

Europe and southern and eastern Europe as well. The third wave, the enormous influx of 1905-15, was largely of southern and eastern Europeans.

In the 30 years from 1840 to 1870, the population of the United States doubled, and in the 30 years from 1870 to 1900, it doubled again[3] (see Figure VIII). More than 40 million aliens entered the United States between 1819 and 1955, according to estimates.[4]

By 1950, the population profile was vastly changed, but what has happened since indicates that future changes will be even more rapid. The 1950-60 increase of about 28 million people (a 46 percent increase over that of the 1940-50 decade) is the largest decennial population gain in our history. Should present trends be maintained until 1980, the population will be 260 million. If present growth rates continue for 38 years, the population will almost double, reaching 350 million by 2000 A.D.[5]

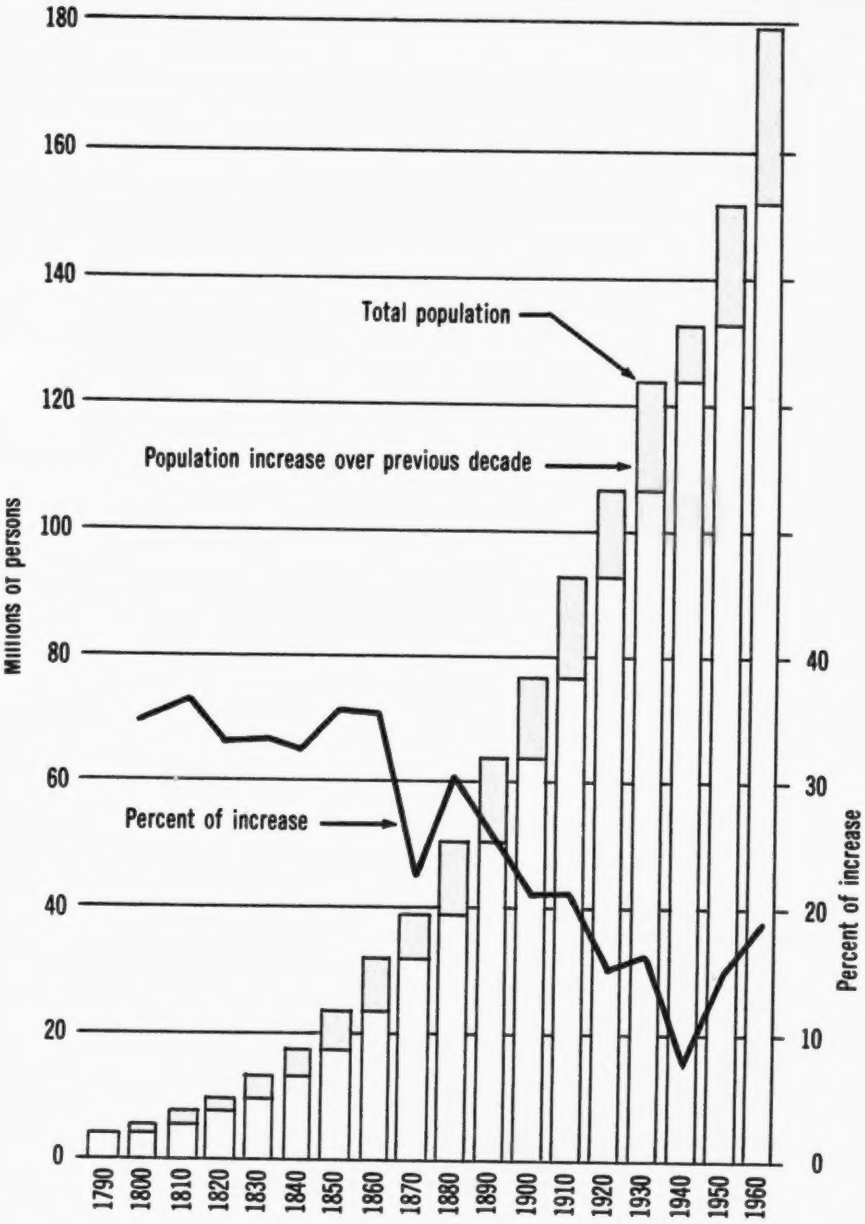
PATTERNS OF GROWTH

Some patterns and characteristics of the U.S. population may be found in other chapters. The rural-urban picture is mentioned in connection with urbanization, the ethnic heterogeneity of the American people is touched upon earlier in this chapter during discussion of mass immigration, and some characteristics of the labor force are given in the chapter on economic growth. This section is concerned with two additional considerations—physical mobility and growth differentiation by age.

Physical Mobility

Migration has been part of America's history, and easy mobility, a characteristic of its people. From the early days of the westward movement, to the shift of Negroes from South to North, to the migration to major cities, Americans have been on the move. A 1960 report shows that 3 of every 10 people had moved away from their native states. The trend was most marked among

Figure VIII. Total U.S. Population, Decennial Population Increase, and Percent of Population Increase, 1790-1960



Source: U.S. Department of Commerce, Bureau of the Census. **United States Census of Population, 1960. United States Summary: Number of Inhabitants.** Final Report PC(1)-1A. Washington, D.C.: Government Printing Office, 1961. Figure 19, p. S 18.

suburbanites. Almost one third of the suburban residents had left the state of their birth, but only one fifth of the rural residents had moved.

Nearly 46 million Americans moved, at least from one house to another, between January 1959 and April 1960. In 1960 only 26 percent of the population had lived in the same house for 10 years or more. People in the urban fringe were the most mobile, only 21 percent having lived in the same house for 10 years or more. In contrast, people in rural farm areas were relatively stable, 47 percent having lived at least 10 years and 15 percent of the farm population having lived their entire lives in the same house.[6]

Growth Differentiated by Age

Predominant age groups are changing as the population expands. During the past decade, the school age groups have grown rapidly, while the young adult population (24-30 years) has declined as a result of the low birth rates during the Depression years. The number of adults in prime maturity (age 30-44) and middle maturity (age 45-64) have increased. The population 65 years and over has grown rapidly[7] and continues to do so. As a nation, we are much older than we were a century ago.

In the early nineteenth century, we were a youthful population. Young people comprised a large proportion of the total, and only a few were over 60. In 1850 approximately 52 percent of the population was under 20 years; in 1900, 44 percent; in 1950, 34 percent; and in 1960, 39 percent. At the same time, there has been an increase at the other end of the scale. Approximately 3 percent of the people were over 65 years of age in 1850; 4 percent, in 1900; 8 percent, in 1950; and 9 percent, in 1960.[8]

PROJECTIONS OF SCHOOL POPULATION

School enrollment is anticipated on the basis of the potential number of school age children and youth as well as upon attendance and enrollment, which includes retention. There was an increase in enrollment of 11 million between 1910 and 1950. About two thirds of the increase resulted from population growth; more than one third resulted from improved enrollment. An analysis by decades indicates that population factors accounted for 72 percent of the 1910-20 enrollment increase and for 61 percent of the increase in the succeeding decade.

A radical change occurred from 1930 to 1940, when a decrease in school age population resulted in declines in the school age enrollment. As a result, during the 1940-50 period, increases in retention accounted for 84 percent of the gain, and population growth accounted for only 16 percent. But during the 1950's the situation reverted to the pre-1930 ratios, and over 60 percent of the increase in school enrollment was due to population changes during these years.[9]

A recent Bureau of the Census report indicates that the elementary school enrollment rose 48 percent and the secondary school enrollment, 54 percent during the 1950-60 period[10] (see Table 4). During the 1960's and 1970's it is estimated that kindergarten and elementary enrollments will grow 50 percent, the number of pupils attending high school will double, and the number of college students may double or triple.[11] Projected college enrollments, based upon assumptions about the percentages of high school graduates desiring higher education, are subject to greater variation than the estimates for elementary and secondary school.

IMPLICATIONS FOR THE SCHOOL PROGRAM

An understanding of population phenomena and their educational implications is essential to the task of providing education for a growing and mobile population. National, regional, and local population statistics must be surveyed and interpreted. The 1963-64 enrollment in the public schools is up 3.4 percent nationally over 1962-63, but regional variations are important. In Arizona and New Mexico, for example, enrollment is expected by 1970

Table 4. Total School Year Enrollment in Grades K-8 and 9-12 of Regular Public and Nonpublic Day Schools, 1949-50 to 1969-70[a] (Numbers Are in Millions)

School year	Total public and nonpublic			Public			Nonpublic		
	K-12	K-8	9-12	K-12	K-8	9-12	K-12	K-8	9-12
1	2	3	4	5	6	7	8	9	10
				Actual			Estimated		
1949-50	28.6	22.2	6.4	25.2	19.5	5.8	3.4	2.7	.7
1951-52	30.5	23.9	6.6	26.7	20.8	5.9	3.8	3.1	.7
1953-54	33.3	26.3	7.1	29.0	22.6	6.3	4.4	3.6	.8
1955-56	36.0	28.3	7.7	31.3	24.4	7.0	4.7	3.9	.8
1957-58	39.0	30.1	8.8	33.7	25.8	7.9	5.2	4.3	.9
1959-60	42.4	32.8	9.6	36.1	27.6	8.5	6.2	5.1	1.1
				Projected					
1960-61	43.6	33.6	10.0	37.3	28.4	8.9	6.3	5.2	1.1
1961-62	44.7	34.0	10.7	38.2	28.7	9.5	6.5	5.3	1.2
1962-63	46.4	34.8	11.6	39.7	29.4	10.3	6.7	5.4	1.3
1963-64	47.8	35.5	12.3	40.9	30.0	10.9	6.9	5.5	1.4
1964-65	48.9	36.1	12.8	41.9	30.5	11.4	7.0	5.6	1.4
1965-66	49.7	36.7	13.0	42.6	31.0	11.6	7.1	5.7	1.4
1966-67	50.6	37.3	13.3	43.3	31.5	11.8	7.3	5.8	1.5
1967-68	51.4	37.8	13.6	44.0	32.0	12.0	7.4	5.8	1.6
1968-69	52.3	38.3	14.0	44.8	32.4	12.4	7.5	5.9	1.6
1969-70	53.2	38.8	14.4	45.6	32.8	12.8	7.6	6.0	1.6

Source: Prepared by U.S. Department of Health, Education, and Welfare; Office of Education; Educational Statistics Branch; Reference, Estimates, and Projections Sections.

Method: Projected enrollments are based upon Office of Education enrollment data and Bureau of Census unpublished projections of the population aged 5-19 by single year of age. In most cases it is assumed that present enrollment trends (1950-60) will continue and that the split between public and nonpublic will remain constant at the 1957-59 level.

[a] Does not include residential schools for exceptional children, subcollegiate departments of institutions of higher education, and federal schools for Indians.

to increase 54.7 percent and 38.2 percent, respectively; but is expected to decrease 10.1 percent in West Virginia, 10 percent in Arkansas, and 0.4 percent in Mississippi. Some states expect these percentages of increase during the 1960-70 period: Alaska, 94.1; California, 67; Florida, 66.3; and Nevada, 53.1.[12] Advance planning for facilities, staff, and budgets need to be based on accurate projections of population.

►Additional classrooms will be needed in the sixties for an estimated 8.1 million more children and youth, one half of whom will be in the secondary grades. (Secondary school classrooms cost more than those for elementary grades.)

In 1961 the classroom shortage was reported to be 127,326 rooms; in 1962 it was 121,235. These figures take on added meaning when one considers that the number of pupils now exceeds normal building capacity by almost 1,666,711 and that 418,341 children and youth are attending curtailed or half-day sessions.[13] Shortages are most acute in urbanized locations. Many small towns and cities are completely untouched by the double and triple sessions.

►College entrance standards are likely to become higher. The use of tests to select students for college will probably increase, although other means such as interviews and school records will continue to be used. Anxiety about college entrance will accompany population growth, placing an increasing burden on teachers and causing greater concern about school marks among students.

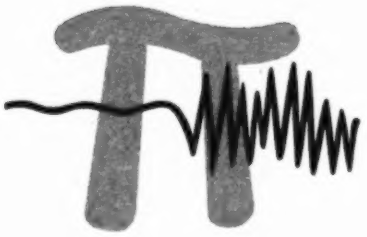
►The shortage of qualified teachers will continue through the sixties unless more vigorous steps are taken. The number of new teachers is increasing because of increasing numbers of college graduates, improved salaries, and the higher status of teaching as a profession. By 1970, the situation may further improve as those born in the postwar baby boom begin to graduate from college.

►The increase in middle class birth rates may develop greater rigidity in the social class structure, although countervailing trends such as the greater number of white-collar jobs available may offset this tendency. If the present high birth rate continues for a few years, there may be a relatively greater number of youth from middle class homes in the next generation competing for entrance to college and for good places in the working force, who will have advantages in competition with working class youth.

►Today's horizontal mobility—largely the result of occupational transfer—makes some minimum educational competencies desirable. The current vast differences between states give advantages to some and deprive others.

►A study of population should be included in secondary school social studies programs. Knowledge about the size, distribution, and composition of population can give students valuable perspective of themselves, the community, the nation, and the world. The study should not be limited to fact alone. Vital and interesting aspects of demography should be presented. Population trends can provide a springboard for students to attain valuable understanding of the pressures and forces of our society.[14]

More and more, plans and decisions in education should be based upon sound demographic information and understanding as our population continues to increase, as age distribution continues to shift, as population centers shift, and as teaching becomes more complex.



CHAPTER NINE

INTERNATIONAL INTERDEPENDENCE AND CONFLICT

World Problems and Forces
The Power Conflict
Cultural Empathy
Diplomacy
Implications for the School Program

At this critical time in human history, understanding and competence in international relations become more vital aspects of good citizenship than they were in the past. Education for international understanding and competence should not crowd out serious concern for local, regional, and national conditions, but to exclude or minimize the international dimension is to live in a fool's paradise.

The study of world affairs in the public schools needs to be selective and based on the maturity of the learner. The teaching of world affairs might be developed around 10 broad concepts or themes which, while varying in breadth and depth, can be learned by the first grade child or the high school senior. These concepts can be placed in four groups: world problems and forces, the power conflict, cultural empathy, and diplomacy.

WORLD PROBLEMS AND FORCES

Understanding international affairs and events requires an understanding of the forces—as well as the facts—that are behind them. One prominent and perhaps dominant political fact of the twentieth century is nationalism.

Nationalism

Since 1945 (see Table 5) 47 new nations with well over one third of the earth's population—29 of them in Africa—have come into existence. The movement toward national autonomy undoubtedly will continue. Students need to be aware of much more than the fact that these new nations exist. They need to understand the term nationalism and to be able to distinguish between "positive" and "negative" nationalism. Teachers should help them to see that negative nationalism, or pronounced ethnocentrism, advocates the exclusiveness of one group and is usually antagonistic toward almost all other groups. Positive nationalism, on the other hand, emphasizes the common interests of members of the group or nation, defines their rights and obligations, and

Table 5. New Nations Since World War II

Country 1	Continent 2	Date of indep. 3	Area (sq. mi. in thousands) 4	Population (in thousands) 5
Algeria	Africa	1962	920.0	11,240
Berundi, Kingdom of	Africa	1962	10.7	2,273
Burma	Asia	1948	262.0	20,662
Cambodia	Asia	1954	67.5	4,845
Cameroun (Br.) Cameroun (Fr.)	Africa	1961 1960	183.3	4,066
Central African Rep.	Africa	1960	242.0	1,185
Ceylon	Asia	1948	25.3	9,612
Chad	Africa	1960	495.0	2,600
Congo (Belg.)	Africa	1960	905.0	13,821
Congo (Fr.)	Africa	1960	135.0	795
Cyprus	Asia	1960	3.6	563
Dahomey	Africa	1960	45.0	2,000
Gabon	Africa	1960	102.0	420
Ghana	Africa	1957	91.8	6,691
Guinea	Africa	1958	106.2	3,000
India	Asia	1947	1,270.0	438,000
Indonesia	Asia	1949	576.0	92,600
Israel	Asia	1948	8.0	2,170
Ivory Coast	Africa	1960	125.0	3,120
Jamaica	Caribbean	1962	4.0	1,638
Jordan	Asia	1946	37.3	1,636
Kuwait	Asia	1961	6.0	240
Laos	Asia	1954	91.5	1,760
Libya	Africa	1951	680.0	1,172
Malagasy Republic	Africa	1960	228.0	5,280
Malaya	Asia	1957	50.7	6,698
Mali	Africa	1960	465.0	4,300
Mauritania	Africa	1960	419.0	640
Morocco	Africa	1956	170.0	11,598
Niger	Africa	1960	459.0	2,850
Nigeria	Africa	1960	356.0	35,070
Pakistan	Asia	1947	365.0	93,800
Philippines	Asia	1946	115.7	27,456
Rwanda, Rep. of	Africa	1962	10.0	706
Senegal	Africa	1960	76.0	2,570
Sierra Leone	Africa	1961	28.0	2,400
Somali Republic	Africa	1960	246.0	1,990
Sudan	Africa	1956	967.5	11,615
Tanganyika	Africa	1961	361.8	9,238
Togo	Africa	1960	22.0	1,442
Trinidad	Caribbean	1962	1.9	859
Tunisia	Africa	1956	48.3	3,965
Uganda	Africa	1962	94.0	6,845
Upper Volta	Africa	1960	106.0	3,534
Vietnam, North	Asia	1954	60.0	15,170
Vietnam, South	Asia	1954	66.0	13,790
Western Samoa	Oceania	1962	1.1	114

promotes transference of loyalty from village or kinship groups to larger regional or national groups.

In analyzing nationalism, pupils should be helped to see that positive nationalism appears to be essential to a satisfactory rate of development. Historically this has been the case, as they will learn in studying the American Revolution, Germany following the Napoleonic Wars, and the struggle of India for independence.

Prior to World War II, one third of the world's population was under some form of colonial rule. Over 80 percent of this third had achieved independence by the end of 1962. Because of their long experience with colonialism, representatives of new nations are sometimes hypersensitive about racial discrimination. For example, a 10-year analysis of debates on the educational advancement of trust territories in the UN Trusteeship Council found that racial discrimination ranked almost on a par with educational priorities as the issue discussed most frequently.[1]

Representatives of new nations are sensitive and sometimes appear to be irrational about issues that might involve matters concerning colonialism. In some instances, they have manufactured concerns. For students, an understanding of the new nations' viewpoints and reasons for them is quite as essential as a knowledge of the viewpoints and aims of the so-called colonial powers of the West.

Students need to learn about the basic dilemma facing many developing countries. Government centralization and control are necessary for optimum organization and administration of human and material resources. Citizens of most developing countries accept such control; their colonial past has accustomed them to rigid social stratification offering little opportunity for upward mobility. Positive nationalism, however, requires intelligent mass participation in and support of the programs of the central government. Education is essential to such enlightened citizen participation—and education tends to promote greater social mobility and less social stratification. Yet this very social mobility is sometimes at cross purposes with the centralization necessary for efficient development of the nation.

The strong desires and hopes of underdeveloped nations for quick modernization cause difficulties on an international scale. The most serious source of world tension today, according to U Thant, Secretary-General of the United Nations, "is the division of the world into rich and poor nations. It is more real, more lasting, and ultimately more explosive than that between communists and non-communists."[2]

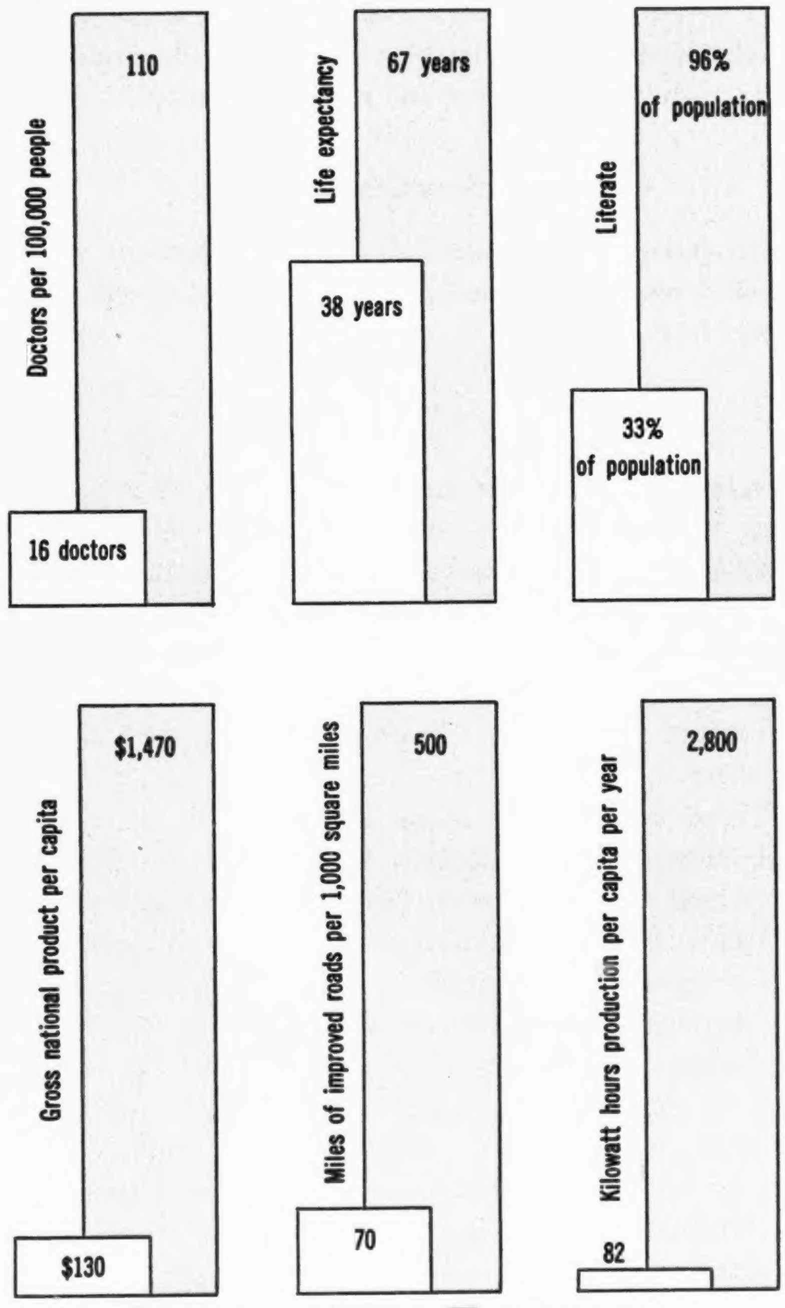
The economic gap between the "have" and "have-not" nations is increasing, not decreasing (see Figure IX). Students should be helped to understand the phenomenon of "circular causation."[3] In rich countries, wealth leads to saving, capital formation, education, and effective public services and these, in turn, to more wealth. In the poor countries, the circle turns in reverse. Disease, malnutrition, illiteracy, low productivity, and meager investment ensure that the misfortunes of one generation will be visited, perhaps even more severely, on the next.

How the new nations develop, the direction in which they go, is a concern for all. What aspect of their development should be emphasized to ensure their progress? Industry? Defense? Education? Agriculture? Some nations have emphasized rapid industrialization. In most cases, this has proved to be ill advised. Unless special attention is given to agriculture and education, industrialization may become more of a liability than an asset. In many new nations, economic change is dependent upon radical change in the political status quo, which is frequently a mere function of the economic status quo. In other words, those few who control the nation's wealth usually resist democratizing the political structure.

Some nations are close to a folk or traditional type of society and possess few of the prerequisites necessary for economic growth; others are making the crucial transition. Some, without resources, skills, or political structure, likely will be absorbed by neighboring countries.

U.S. citizens have a responsibility for understanding not only where and why their foreign aid is going but the limitation to

Figure IX. The Gap Between the Underdeveloped and the Developed Countries



Source: U.S. Department of State, Office of Public Services, Bureau of Public Affairs. **A New Program for a Decade of Development for Underdeveloped Areas of the World.** Department of State Publication 7190, General Foreign Policy Series 165. Washington, D.C.: Government Printing Office, May 1961. p. 7.

what their tax dollars can do. Outside aid is no cure-all although it is a spur and it is necessary. The most essential factor in development is the willingness and ability of the aspiring nation to organize its own human and material resources.

POPULATION INCREASE

Some international aspects of population increase have been touched upon in the previous chapter, and they will not be repeated here.

THE DESIRE FOR PEACE

Throughout history man has talked of peace while preparing to wage war, an irony that must have moved Immanuel Kant to write in 1752: "There used to be an inn in Holland with a sign of 'Perpetual Peace' and on the signboard was depicted a graveyard. Whether the satire was aimed at all mankind, or especially at the rulers of states, or maybe, only at philosophers who dreamed this sweet dream, it is a question that may here be left unanswered."[4]

The desire for peace is shared by most people around the world and intensified by our power of destruction. Responsible attitudes need to be based on the facts behind the headlines; children and youth should be educated so that they are able to resist rumor and exaggeration. Clarification of the dilemmas facing the great world powers is the urgent task of educators.

Nowhere is the world predicament pointed up more clearly than in the differences between the Western and Soviet approaches to disarmament. Essentially, the conflict might be reduced to this: Amidst formal proposals and counterproposals for arms control and disarmament, each side accuses the other of wanting to disarm in the area of its opponent's greatest strength.

The Western plans for disarmament generally have involved the establishment of control first, followed by the reduction of conventional armaments and armed forces, and finally the prohibition of nuclear weapons. The Soviet Union claims that this sequence gives the West access to Soviet military secrets before any measure of disarmament can take place. Furthermore, this sequence would reduce the arsenal of Soviet conventional weapons, in which the Soviet Union believes it has a slight advantage, before reducing the nuclear weapons, in which the West believes it is superior.

On the other hand, the Soviet plans for disarmament would create the reverse sequence: prohibition first, reduction next, and then control. The Western powers point out that this timetable of disarmament would strip them of nuclear weapons, which they regard as their main deterrent against possible aggression, while preserving the Soviet preponderance in armed forces and conventional armament. Moreover, neither measure would be subject to really effective control under the Soviet plan, and no country could be assured that the others were living up to their obligations.

The defensive military build-up increases on both sides, and so does anxiety and tension. In this situation education can serve importantly as a rational influence in bringing peoples closer together in their search for peace.

THE POWER CONFLICT

From ancient history—Athens vs. Sparta—two fundamentally different systems of social organization have evolved as a means of governing and preserving social order. One stresses the individual; the other, the state. More recently, the chief protagonists in this basic conflict were England and Nazi Germany. Today they are the United States and Soviet Russia. This age-old struggle between man as master of man and man as master of men has new significance in light of the rapid development of technology, transportation, and communication. For the first time in history, the victor may be able to set a world pattern of government that will endure for a long time.

President John F. Kennedy mentioned the long struggle with communism in his inaugural address and in several other speeches, including one at the University of North Carolina: "Peace and freedom do not come cheap, and we are destined to live out most if not all of our lives in uncertainty and challenge and peril. Our policy must therefore blend whatever degree of firmness and flexibility which are necessary to protect our vital interest, by peaceful means if possible, by resolute action if necessary."[5]

The armed forces of the West joined with the Soviet forces in World War II to defeat a menace that seriously threatened both. Wartime cooperation on the whole was good, and some Western leaders came to believe that the Soviet regime would not be difficult to work with following the war. However, the wartime cooperation between the West and the Soviet Union was shattered within two years after the end of World War II.

The Western position was stiffened by Soviet efforts to take over the northern Iranian province of Azerbaijan in 1945 and by the pattern of "Sovietization" in Poland, Czechoslovakia, Hungary, Rumania, and Bulgaria which had become clear by 1946. In his "Fulton Speech" on May 5, 1946, Winston Churchill warned: "From Stettin, in the Baltic, to Trieste, in the Adriatic, an iron curtain has descended across the Continent. Behind that line lie all the capitals of the ancient States of Central and Eastern Europe. . . . All these famous cities and the populations around them lie in the Soviet sphere, and all are subject in one form or another not only to Soviet influence, but to a very high and increasing measure of control from Moscow."[6]

Since the end of World War II, communism in its various forms has become the ruling dictum for governments controlling 900 million people, about one third of mankind, and the end is not in sight. Three factors—communist methodology, world conditions, and cadre zeal—are relevant to this expansion as well as to possible expansions in the future.

Communist methodology is cradled in the belief that the ends totally justify the means, as the Russo-German nonaggression pact of 1939 and the 1956 suppression of the Hungarian uprising demonstrate. The basis of a communist government's foreign policy is power; its reason and logic are a product of its military and economic strength. The morality of power, in the communist doctrine, is determined by the success of the ends.

Conditions in many countries of the world are ripe for the infiltration of communism. Prominent among these conditions are chronic malnutrition and hunger which afflict a sizeable minority of mankind. Communism has yet to gain control in a country that is economically sound and materially sufficient.

In addition to mass poverty, communism needs leadership in order to thrive. A rather large group of educated unemployed in many underdeveloped countries provides the dynamism and leadership that might be applied to communism. Unfortunately, this has already happened in the state of Kerala in southern India. With one of the highest literacy rates in India, Kerala in 1957 voted a Communist majority into its Parliament. (The control of Kerala swung back to the anti-Communist groups in 1960.)

Communism plays upon symbols of exploitation found in many undeveloped countries. The sumptuous living of the upper classes and colonialism practiced by indigenous leaders are used by communists to sharpen class antagonisms within countries.

Stevenson has warned that "the dimension of our crisis" presents us with the question of whether "we can use our wealth and capacity for some vision of truth, some ideal of brotherhood. We can imprison ourselves within the selfishness of our own concerns and the limitations of a narrow nationhood."[7]

Even if the Soviet Union started losing the competition tomorrow, its leaders probably would not abandon their messianic beliefs. A quality of persistence—*vynoslivost* or lasting a thing out—has long been an aspect of the Russian character. In 1851 the U.S. Minister to Russia, Neill Brown, noted that "a strong superstition prevails among the Russians that they are destined to conquer the world."[8] And even earlier, in 1835, de Tocqueville noted that "there are at the present time two great nations in the world, which started from different points, but seem to tend toward the same end. I allude to the Russians and Americans. . . . Their starting points are different, and their courses are not the same; yet each of them seems marked out by the will of heaven to sway the destinies of half the globe."[9]

One should not, however, treat the Soviet government as an unchanging monolith. Changes are taking place in the Soviet Union as well as in the Sino-Soviet bloc. Within the Soviet Union, the dethroning of Stalin—the admission that communist leaders are not all-wise and flawless—represented a fundamental break with the past. Also, the renunciation of major wars as a means of communizing the world is an important change, one that is not accepted by Communist China. The extent to which these and other important changes in the Soviet Union will ameliorate the cold war remains to be seen.

CULTURAL EMPATHY

The ability to "get inside another culture," to know and understand how another national group sees the world, obviously is essential to a student's understanding of today's world. Cultural empathy enables a person to see other nations and his own in true perspective. He can perceive both similarities and differences between cultures; he can see the relationships among cultural, political, economic, and educational factors; he can recognize national characteristics but avoid national stereotypes.

Tolerance should not be confused with empathy, and knowledge of the gestures and common expressions of another culture should not be confused with cultural empathy. Even language facility, while essential for cultural empathy in the truest sense, by itself does not ensure it.

An open-minded and flexible mental approach to differences among nations and peoples is imperative for cultural empathy. Individuals tend to see what they desire and to hear what they wish. Therefore it is necessary to consciously withhold judgments—to see, to understand, and to look through other eyes at phenomena that are not rooted in the background and experience of the viewers.

SIMILARITIES AND DIFFERENCES AMONG CULTURES

Neophyte world travelers look for similarities because these relationships are less threatening and more reassuring than obvious differences. As one develops greater international maturity and self-confidence, the differences become equally intriguing. A "oneness" of mankind does exist in terms of certain needs and desires, but the world is divided into a large number of living cultures and subcultures.

Sometimes teachers overemphasize similarities and underplay differences, believing that the differences are self-evident and the similarities more obscure. Actually, a strong case can be made for the reverse position. Basic differences are probably the more obscure, whereas the recognition of similarities between other cultures and one's own is almost instinctive.

BALANCE AMONG ASPECTS OF A SOCIETY

Generalizations about a whole culture (or national group) on the basis of one or two aspects of it should be avoided, whether such generalizations are made by students or their instructors. A student of Indian literature, for example, may be inclined to generalize about Indian politics, Indian geography, and the economy of India on the basis of his knowledge of its literature. Or to use another example: Some studies of American civilization in U.S. colleges and universities are innocently distorted by a professor who shapes the course around his particular discipline. On the other hand, a knowledge of several facets of a culture which enables a student to relate one to another is helpful.

NATIONAL CHARACTERISTICS AND STEREOTYPES

Misinformation and lack of information lead to stereotyped thinking about people and their customs. The tendency is well illustrated by the responses about other countries that were given by a nine-year-old Swiss boy in an interview with Piaget and Weil. Over 200 Swiss children between the ages of four and fifteen were interviewed in an attempt to determine the roots of their patriotism.

"Have you heard of such people as foreigners?"

"Yes, the French, the Americans, the Russians, the English."

"Quite right. Are there any differences between all these people?"

"Oh, yes. They don't speak the same language."

"And what else? Try to tell me as much as possible."

"The French are not very serious, they don't worry about anything, and it is dirty there."

"And what do you think of the Americans?"

"They are ever so rich and clever. They discovered the atomic bomb."

"And what do you think of the Russians?"

"They are bad, they are always wanting to make war."

"Now, look, how do you come to know all you've told me?"

"I don't know. I heard it. That's what other people say."[10]

Contact with members of another culture is a starting point in developing true cultural empathy, but contact per se may accomplish little. Comparative social, educational, and economic status is important for a meaningful contact. The purpose of the contact may also affect the degree of cultural empathy which results. A contact based on a job to be done may lead to rewarding understanding and intercultural empathy when the job is completed successfully.

DIPLOMACY

An understanding of diplomacy is basic to international competence. Three components of diplomacy will be discussed: national interest, knowledge of U.S. foreign policy, and familiarity with international organization and the United Nations.

NATIONAL INTEREST

Self-interest is the basis and the primary guide for the foreign policies of every nation. Just as family interests come before community interests, so do a nation's interests come first. But it is a mistake to interpret legitimate self-interest as selfishness or disregard for others. National interest, while a guide, is invariably subject to compromise necessitated by conflicts among the self-interests of many nations.

U.S. FOREIGN POLICY

The broad aims of our nation's foreign policy and a clear understanding of how policies are formulated are essential for a student's understanding of international relations.

Foreign policy should be viewed as an extension of domestic policy, tempered by existing international conditions. In broad terms, the goals of the U.S. foreign policy are to promote an eventual society of free nations, to settle disputes by peaceful means, and to help other nations to help themselves. Underlying these goals are three convictions: that man has an innate dignity, a moral and spiritual belief inherited from the Judeo-Christian tradition, Greek philosophy, and Roman law; that representative government is the best and fairest way of governing people; and that peace and reasonable physical and economic well-being provide the best milieu for man's development.

At the highest level, foreign policy is formulated by the President and the State Department. If time permits and if policy concerns a major decision, representatives of Congress, the State Department, the Central Intelligence Agency, the Joint Chiefs of Staff, and key Cabinet officers are involved. However, the final authority for decision making rests with the President.

While the broad lines of U.S. policy are open to world inspection, the specific formulation and implementation of foreign policy sometimes must be private. The effectiveness of U.S. foreign policy would suffer considerably from too much publicity, as occasional press leaks have demonstrated. Too much secrecy, however, is also dangerous. An alert and courageous press is probably the best insurance against either possibility. Similarly, the press has a responsibility for preserving essential security by its occasional silence.

FOREIGN ASSISTANCE

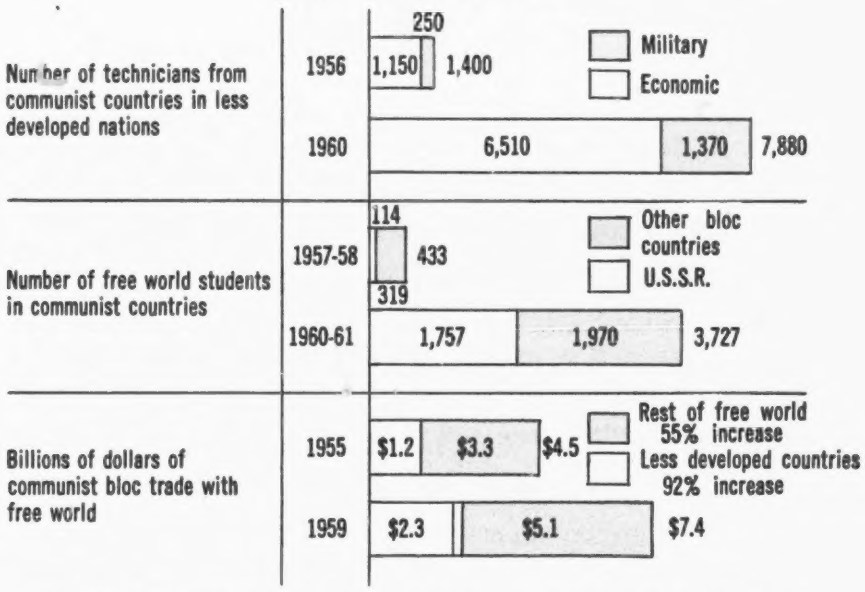
Programs to provide military, economic, social, and educational assistance to other countries have become a major responsibility and a costly one, at the rate of about $4 billion a year. This expenditure is considered necessary for three reasons:

The Humanitarian Aspect. While having one seventh of the earth's population yet producing nearly one half of its manufactured goods, the United States exists in a world in which roughly 1.25 billion people have a yearly per capita income of less than $300. In this circumstance, we have a moral obligation to help less fortunate people who want to help themselves. This should not be construed to mean that the United States should neglect its own needy; the nation is wealthy enough to help both.

The Economic Benefits. Helping others help themselves provides benefits to the United States. Economic and military assistance, amounting to less than 1 percent of the U.S. gross national product, has a positive impact on the national economy by creating jobs, since most foreign-aid funds are spent in the United States; by stimulating international trade; and by insuring a continual supply of critical import items. The explanation in Chapter Three, page 40, points out the increase in trade which results from even a modest increase in the gross national product.

The Political Reasons. The challenge of communist efforts in newly developing nations should not be minimized in any objective appraisal of foreign assistance, as Figure X indicates. Unfortunately, Congress and individuals reporting to Congressional committees sometimes exaggerate this aspect. The United States

Figure X. Three Phases of Communist Effort to Align Newly Developing Nations with Bloc Countries



Source: U.S. Department of State, Office of Public Services, Bureau of Public Affairs. **A New Program for a Decade of Development for Underdeveloped Areas of the World.** Department of State Publication 7190, General Foreign Policy Series 165. Washington, D.C.: Government Printing Office, May 1961. p. 23.

probably would be involved in a large foreign-assistance program even if no communist threat or challenge existed, but this factor does add a degree of urgency and emphasis.

International Organizations and the United Nations

Students should be aware of the differences between today's many international organizations. The United Nations is singled out for discussion in this report, but teachers and others should keep in mind that it is only one—although it is unique—of many important international organizations which include the North Atlantic Treaty Organization (NATO), the Organization of American States (OAS), and the European Coal and Steel Community (ECSC). When the history of our times is written by future historians, it is conceivable that the European Coal and Steel Community might emerge as the most concrete development in international organization.

The United Nations. Between the extremes of those who would channel most foreign policy through the world organization and those who would do away with it, one finds people who believe that the United Nations makes a vital contribution toward world peace and political, economic, social, and educational development. If the United Nations were described in one phrase, it might be called, as it is in the Preamble of the UN Charter, "a center for harmonizing differences."

Its work can be discussed in terms of five broad functions:

1. It serves as a verbal arena for the cold war and competitive coexistence. Since the organization and the cold war have developed concurrently, the United Nations often serves as a forum for the major powers to outline their opposing viewpoints.

Positions taken by the Soviet Union, for example, often are pitched to the ears of new nations. The speeches of Soviet delegates on important issues often are printed in African newspapers. These speeches are anti-imperialist, anticolonial, anti-United States, and framed in high moral tones. An analysis of discussions of educational issues in the Trusteeship Council revealed that the Soviet delegation made *no* commendatory comments, 107 critical remarks, and asked 52 questions during 1947-56.[11] During the same period, the U.S. delegation made five commendatory comments, 14 critical remarks, and asked 24 questions. The educational development of the trust territories has been slow and sporadic, to be sure, but *some* advances have been made in *some* territories. The Soviet's commitment to their mission is the moral of this story.

2. It functions as a diplomatic arena for peace. The United Nations has served and continues to serve as a valuable mediator for peace. Soviet troops left Iran, the Palestine War was mediated, the Indonesian dispute of 1945-49 was settled, the Kashmir problem was contained, the Korean crisis was met with concerted

action, the 1948 settlement of the Berlin blockade was initiated in the halls at Lake Success, the threat to world peace at Suez was dealt with in the General Assembly, the brutal suppression of the Hungarian rebellion was brought clearly into focus before world public opinion, and the independence of most of the trust territories was accomplished.

Above all, the United Nations has served as an effective deterrent to World War III. Who knows where national passions might have led if some world forum were not available for letting off steam? The former U.S. Representative to the United Nations, Warren Austin, when asked about the diplomatic wranglings in that body, replied: "It is better for aged diplomats to get ulcers than for young men to get shot."

3. It presents a sounding board for opinions and viewpoints. The United Nations serves as a valuable sounding board for the U.S. government in two ways. The forum is a world meeting place, providing a year-round conference where delegates learn the policies and viewpoints of other nations, which they may interpret to their governments at home. It also enables our own government, for example, to note that issues of colonialism, self-determination, economic development, and racial discrimination are more important to a majority of member nations than are our primary concerns about the cold war, competitive coexistence, and the German and Cuban problems.

4. It affords a workshop in democratic practice. As such, it provides opportunity for delegates representing over 110 nations to learn about both the benefits and the frustrations of democratic procedures. With diplomats from other countries living and working in this environment, is it not possible that the political philosophies of Democritus, Socrates, Locke, Jefferson, and others may gradually gain a more widespread international acceptance than they enjoy now?

5. It offers an avenue for economic, social, and educational development. Through the various UN technical assistance programs as well as through its related agencies, the United Nations makes significant contributions to economic, social, and

educational betterment. For example, the International Labor Organization (ILO) advises governments on labor and social problems and, in particular, emphasizes vocational education and training in how to produce more and better goods. The Food and Agriculture Organization (FAO) advises on methods to increase the efficiency of farming, forestry, and fisheries and to improve nutrition; the UN Educational, Scientific, and Cultural Organization (UNESCO) aids countries in building and improving educational systems, in introducing science teaching, and in setting up science services. The International Civil Aviation Organization (ICAO) assists in training local personnel in basic techniques and skills relating to civil aviation.

U.S. participation in the economic and social programs of the United Nations is relatively small, only about 1 of every 10 American dollars being used for foreign economic aid. Generally speaking, the U.S. government would benefit from channeling more of its economic, social, and educational assistance through the United Nations.

IMPLICATIONS FOR THE SCHOOL PROGRAM

World problems have recently appeared to be the foremost concern of the American people. For this reason alone, the public schools should provide students with a background for understanding international relations. In addition, it becomes increasingly evident that participation in civic affairs demands both breadth and objectivity of viewpoint.

►All teaching about international relations should stress objective analysis and critical evaluation of the issues. Too often teaching in this area includes an uncritical acceptance of clichés, generalities, and pat phrases.

Take the phrase "international understanding" as an illustration. A critical analysis of the term might consider three questions: Does cultural unity promote peace? Civil wars—wars between the Greek city-states, the Italian wars of the Renaissance, the religious wars of the sixteenth and seventeenth centuries, the War between the States, for example—were fought among nations and states that had common language, education, religion, literature, and art. The weight of history does not seem to support the pleasing generalization that people are less inclined to fight one another as they become more alike in their ways and thinking.

Does a higher general level of education and culture promote peace? Warfare seems to have little relation to the level of education and culture in a nation. The recent history of such nations as Japan, Italy, and Germany—all highly educated and cultured nations—should be contrasted with that of other educated and cultured nations, such as Sweden and Switzerland, both of which have had relatively long periods of peace. Much as one might like to believe that education and culture promote peace, historical evidence does not support such a generalization.

Do wars usually result from mutual ignorance and misunderstanding? Some people contend that if only people of good will could sit down and talk things out, wars might be avoided. This belief is the most misleading of all, for it is based upon an oversimplification. Major wars generally are fought over deep-seated, complex issues, although the specific cause may be a minor incident. It may be argued that misunderstanding between nations prevents or at least delays the onset of wars as often as does understanding. For example, England and France might have acted differently had they clearly understood the motives and the military strength of Mussolini when he went into Ethiopia in 1935. The Allies might have stopped Hitler in 1936 if they had clearly understood the meaning of his move into the demilitarized Rhineland. Demosthenes tried to make the Athenians understand the true nature of the Macedonian threat to the north of Greece; it was too late when they finally did.

►Teaching about international relations in the public schools may be approached in three ways:

1. Courses in the so-called traditional subjects, such as geography, history, and foreign languages, can provide knowledge and information that is important at every age or grade.

2. Education for international understanding and competence should follow the concentric-circle concept of learning, beginning with things most familiar and extending toward the unfamiliar. Some educators have argued that this progression is unrealistic in the modern world, when a child can see the world flash across the television screen or can fly across the ocean in a few hours. The significant question, however, concerns what the child actually understands. Evidence by Almy and others indicates that children may possess language and information but lack understanding.[12] Until solid research and evidence indicate otherwise, the concentric-circle concept is the most realistic and meaningful approach to international relations for most children.

3. The international dimension should be used to enrich the instructional program wherever appropriate. For example, classes above the third grade level might benefit from materials about the United Nations and its related agencies. One Virginia junior high school has in many ways included songs and dances of UN member nations in music classes. A high school in the District of Columbia has utilized FAO, UNESCO, and WHO in enriching home economics courses. A high school in Pennsylvania has found that the work of the International Atomic Energy Agency, the World Meteorological Organization, and UNESCO is useful in physics courses.

An organized approach to teaching world affairs in all subject areas was begun in Glens Falls, New York, in 1957, under the joint sponsorship of the Glens Falls Board of Education and the National Council for the Social Studies, with outside resources.[13] The Program for Improving the Teaching of World Affairs (ITWA) sought to develop in each pupil an increasing understanding of and respect for other peoples, a growing appreciation of other cultures, and a sense of responsibility for his own role and the role of his country in a world of nations.

It became apparent during the study that it was important for all teachers to increase their own knowledge of world affairs. Activities such as committee work, in-service workshops, special courses for teachers, publication of newsletters to inform communities about the project, and some travel experiences for teachers provided opportunities for increased learning.

Large secondary schools may profitably offer a separate elective course on international relations to prepare students for the increasing number of professional opportunities in the field of international relations and many other related professional fields.

►One of the 33 recommendations developed by the Project on Instruction pertains to teaching about communism. It states—*The school curriculum should include a study of political and social ideologies focusing upon communism. The methods of rational inquiry should be stressed. The study should be set in the perspective of the modern world and be incorporated into the instructional program at appropriate points. If a special unit on communism is deemed desirable in the secondary school, it should supplement and complement earlier study of these topics.*

As with other areas of the curriculum, decisions about what to teach *and* how to teach *about these topics should be based upon policies developed by school administrators and teachers of the local school system. In the formulation and implementation of such policies, school personnel should utilize the resources of scholarship and be supported in their decisions by the school board and by an informed community opinion.*

The discussion of communism in the public secondary schools should be analytical and reasonably objective and should treat communism in a context of other "isms" (capitalism, fascism, and socialism). Teachers should have a solid background for teaching the subject.

Complete objectivity in teaching is probably impossible, but helping the student to reason for himself is crucial. The successful brainwashing of some American soldiers during the Korean conflict attests to the inadequacy of restricting teaching to providing black-and-white answers. Many soldiers were unable to critically analyze and evaluate apparently convincing arguments when they were presented with unfamiliar premises.

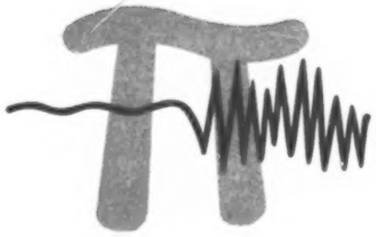
Those who fear that American youth will be subverted by knowing the communist point of view underestimate the ability of youth to make intelligent judgments, if given the methods and materials to do so. Furthermore, they underestimate the influence of living in a democratic society. A few speeches or hours of reading about communism will not subvert youth; rather it will provide a comparative dimension that helps them to become better citizens.

Courses about communism need to be selective, in view of time limitations. They should be developed around basic concepts that serve as a framework of understanding and help to interpret the maze of facts and information about the subject.

The inconsistencies between the theory and the practice of communism and comparisons between totalitarian and other forms of government should be included, in addition to historical material and a survey of Soviet strategy and tactics. A "Day Under Communism" might be used to help students grasp more intimately the realities of the Soviet system.

►Teacher education for teaching of international relations should be reappraised. The present provisions are inadequate. In addition, in-service education is needed for most teachers, especially those whose preparation gave little attention to international relations.

Thomas Jefferson's familiar sentence—"A nation that expects to remain free and ignorant expects something that never was nor ever will be"—offers a genuine challenge to the teaching profession. Knowledge and understanding of international relations are essential to civic responsibility for the years ahead, and the foundations for competence in this area must be laid in the elementary and secondary schools.



CHAPTER TEN

SOME TASKS AHEAD

Coping with the Knowledge Explosion
Developing Rational Thinking
Teaching Controversial Issues
Developing Social Responsibility
Building International Competence
Focusing on the Individual
Maintaining Integrity and Courage
In Conclusion

The birth of new nations, the impact of new inventions and discoveries, the threat of new weapons, the stirring of new ideas, and even the ascent into a new dimension of the universe—everywhere the accent falls on the new. Education is challenged as never before to move forward in philosophy and program to meet the challenge of change and the demand for better quality.

Life in this exciting and uncertain period will be influenced significantly by actions and attitudes the American people take toward seven tasks facing public education—tasks rooted in educational values and social forces and trends. Successful response to these tasks will depend upon how well teachers understand what is to be done and pass on this understanding to future citizens.

COPING WITH THE KNOWLEDGE EXPLOSION

Selecting what to teach is a greater problem than ever before. Herbert Spencer's classic question—"What knowledge is of most worth?"—must be answered in light of the rapid growth of knowledge, the acceleration of change, and the complexity of choices.

The explosion of knowledge or the "information revolution" is probably the most important single factor forcing change upon education. So much has been learned in so many areas that it is no longer possible for students to learn even summaries of existing knowledge. The sheer bulk of knowledge defeats any effort to teach it as a body of facts. We can expect radical reorganization of a given body of knowledge not once in the coming century but several times, at intervals of 10 to 20 years. The serious critics of education, both in schools and in colleges, are not as much concerned with the *amount of knowledge* students possess as with the lack of *understanding* of what they know.*

The key to the instructional task is the *structure* of an area or discipline. The structure of a discipline may be defined as the body of concepts that limit the subject matter and control research about it. For instance, the Physical Science Study Committee (PSSC) has organized a modern physics course around basic concepts. The course is divided into four parts: (a) *the universe*, an introduction to fundamental ideas of time, space, matter, and motion, which serves as a survey of the entire course; (b) *optics and waves*, which moves from study of optical phenomena to an exploration of a wave model for light; (c) *mechanics*, which includes study of the dynamics of Galileo and Newton, momentum, energy, and the conservation laws; and (d) *electricity and modern physics*, which presents an introduction to electricity, magnetism, and the structure of the atom.

---

* This situation forces us to raise several questions: How can significant content be selected? What is the structure of the discipline? What facts, concepts, and generalizations should be taught? Such questions are discussed in Chapter Two of the Project's major supporting volume, *Deciding What To Teach* and in Chapter Three of *Schools for the Sixties.*

Teaching the physical, biological, and social sciences clearly requires teaching something more permanent and pervasive than a catalogue of facts or a rhetoric of conclusions. A vivid awareness of this has led some scholars and researchers to search for better ways of selecting, organizing, and teaching knowledge.[1]

Some commendable studies and programs have been initiated since 1955 to help teachers organize and present knowledge more effectively. Several large-scale studies are under way in the various subject areas,* and there is currently an unprecedented amount of research and interest in structures, concepts, and generalizations related to the disciplines. Every school system should examine and make appropriate use of recent studies and research.

DEVELOPING RATIONAL THINKING

Science and technology have profoundly changed our way of looking at the world. They have developed our faith in the rational powers of man as his surest salvation.

---

* These studies are described in the following working paper: National Education Association, Project on the Instructional Program of the Public Schools. *Current Curriculum Studies in Academic Subjects.* (Prepared by Dorothy M. Fraser.) Washington, D.C.: the Association, 1962. 102 pp. Also see the following publication: National Education Association, Association for Supervision and Curriculum Development. *Using Current Curriculum Developments.* Washington, D.C.: National Education Association, 1963. 118 pp.

Rational thought includes the ability to use reason and evidence in solving problems and making decisions. In its 1961 report entitled *The Central Purpose of American Education,* the NEA Educational Policies Commission said, "The purpose which runs through and strengthens all other educational purposes—the common thread of education—is the development of the ability to think. This is the central purpose to which the school must be oriented if it is to accomplish either its traditional tasks or those newly accentuated by recent changes in the world. To say that it is central is not to say that it is the sole purpose or in all circumstances the most important purpose, but that it must be a pervasive concern in the work of the school. Many agencies contribute to achieving educational objectives, but this particular objective will not be generally attained unless the school focuses upon it. In this context, therefore, the development of every student's rational powers must be recognized as centrally important."[2]

The ability of citizens to think rationally and clearly is the surest—if not the only—guarantee of preservation of a democratic society. The mind that functions critically can distinguish the extraneous from the pertinent, the misleading from the indicative, the distortion from the truth. The need for rational thinking will become ever more crucial as the pace of change quickens, as technology becomes more complex and specialized, as propaganda and advertising become more subtle, and as international problems become more demanding.

Teachers have a key role to play in helping their students to develop orderly, rational processes of thought. Teacher education institutions should examine their programs carefully to make sure that future teachers will be equipped for the task.

TEACHING CONTROVERSIAL ISSUES

Rapidly changing social conditions and institutions make controversy among various groups and organizations inevitable. If con-

M

sideration of controversial issues is left to unplanned experience, there is little to guard the individual against his own prejudices.

Issues that are truly controversial are rarely settled in a day, a year, or even a decade. The significant issues of today are likely to persist into the adult life of students now in school, although the specific form they take may shift. If these issues are treated in the classroom, students begin to build a background for understanding them. The study of leading issues, based on investigation of underlying social forces and trends, becomes part of the student's introduction to his society, part of his education for citizenship. Only a small proportion of school time will be devoted to study of controversial topics, but time so invested can make study of related noncontroversial materials more effective.

Juvenile delinquency and economic and racial segregation are issues that could—and should—receive calm analysis in the secondary schools.

Most juvenile delinquents have failed in school and drop out without graduating. Preventive efforts to help children from deprived families in reading and other skills may result in the children's receiving more satisfaction from school. Youth who can be identified as vulnerable to delinquency can be given a special school program that contains an element of work experience. Work-study programs for predelinquents in the elementary and junior high schools are now being tried.

Racial and economic segregation is such an obvious and pressing issue that discussion of it can hardly be avoided—nor should it be. But careful attention should be given to facts—that racial segregation is intimately related to segregation by income, for example, and that racial segregation is not restricted to the South, either in education or in housing. At present, three of every six Negro children in the United States attend a segregated school (one in which 90 percent or more of the children are Negro) in the South. Two of every six Negro children in the United States attend a racially segregated school in a Northern city. This leaves one in six who attends a school with less than a 90 percent

Negro enrollment. Segregation in housing is another dimension of the problem.

Substantial progress toward solution of controversial human relations problems is possible within the present decade through the schools—provided effective programs are designed and teachers are prepared to develop and teach them.

DEVELOPING SOCIAL RESPONSIBILITY

Time has proved the wisdom and vision of Thomas Jefferson, James Madison, George Washington, Horace Mann, and others who shared their faith in the educated common man. The founders of this republic placed their faith and trust in a boldly optimistic belief in the ability of the common man, when educated, to make wise decisions about who should govern and how the government should be conducted. Adherence to this philosophy has fostered a strong sense of social responsibility which has been instrumental in developing our free institutions and the growth of the system of free enterprise.

Education for social responsibility needs to emphasize three areas:

Skills in *critical thinking* and *problem solving* should be stressed. Students will develop habits of making objective analyses of data and also will learn to identify and differentiate between social ideals and social realities.

Attitudes of loyalty are a basis for wholehearted commitment to the fundamental values and ideals of American democracy. These attitudes can be developed with a minimum of indoctrination—the emphasis should be on knowledge, understanding, and critical thinking.

Participation in civic activities is the responsibility of every citizen. The schools, in turn, are responsible for teaching knowledge from which motivation toward it will develop.

Further exploration is needed into how citizenship responsibilities can be taught in more interesting and practical ways. Field experiences such as a day in court, a visit to the fire department, participation in community development programs, and observation of political rallies can help community affairs become more alive and meaningful.

The kindergarten-through-grade-12 program for civic responsibility should be examined for content, continuity, and sequence. Many programs would benefit from rethinking and re-examination, considering basic concepts and generalizations—what is really most essential for the student to know.

BUILDING INTERNATIONAL COMPETENCE

The international challenge has resulted from fundamental changes in the geopolitical nature of the world as well as from the opposition of some individuals and groups to modifying policy to meet the changing times. The problem is deeply rooted in a way of thinking about the world that was partly responsible for Woodrow Wilson's defeat on the question of U.S. membership in the League of Nations.

Three fundamental decisions made by President Truman in the spring of 1947—the policy of containing the advance of communism, the Marshall Plan, and aid to Greece—deeply involved the United States in world affairs. Now the steadily increasing economic challenge of the Sino-Soviet bloc together with that of the European Economic Community (Common Market) forces the United States to follow a path of ever greater international involvement.

The study of international relations in the public schools should be organized around basic concepts. Material studied will inevitably be selected according to the maturity of the learner, the purposes of education, and time available in the school day. Therefore it is desirable to develop the study of world affairs around *broad concepts or themes* that constitute the framework for organizing and relating various facts and knowledge. The same concepts, while varying considerably in depth and breadth, should be applicable to the first grade child and to the adult expert.

Ten basic themes, grouped under four headings, might be used. These are world problems and forces (nationalism, the revolution of rising expectations, population increase, and the desire for peace); the world conflict; cultural empathy; and diplomacy (national interest, U.S. foreign policy, and international organization and the United Nations).

The teaching of international relations should stress objective analysis and careful evaluation of issues. Too often, teaching in this area includes an uncritical acceptance of clichés, generalities, and pat phrases.

Schools should examine their curricular and extracurricular programs to determine where the international dimension can be used effectively. Too frequently it is assumed that attention to international relations per se will promote desirable understanding, attitudes, and skills. Of course, this assumption is no truer for international relations than for any other school subject. Perhaps the greatest need is for a systematic total-school approach. The "bits-and-pieces" approach does little to develop the continuity, scope, and sequence that mark effective teaching of any school subject.

FOCUSING ON THE INDIVIDUAL

The impersonal and mechanistic nature of our mass society makes it urgent for the school to develop greater concern for the individual, a task often spoken about but too infrequently provided for.

No child fits exactly into one or another school group, no matter how carefully members of such groups may be identified. Each pupil possesses characteristics that cut across group identifications. For example, many culturally handicapped children are viewed as slow learners, potential dropouts, and candidates for the alienated youth group. They are grouped accordingly in the school, yet some of them are potentially academically gifted. There is increasing evidence that highly creative pupils may be either typical or academically gifted, although a greater number of them are in the academically gifted group. In every group, whether it is based on academic ability, creative talents, cultural background, physical condition, or some other criterion, there are underachievers—children who would be grouped elsewhere if they fulfilled their potential.

The educational needs of all youth cannot be met by a single uniform program of instruction. Equal educational opportunity does not mean identical education. The curriculum must be differentiated to provide for individual differences if all pupils are to have equal opportunity to develop their potentialities. In seeking ways to achieve the needed adaptations, two levels of differences and needs among students should be recognized. At one level there are broad "type-differences" between one special group and another—the culturally deprived, the academically talented, and so on. At a more subtle but equally significant level are the differences that exist from one student to another, regardless of group. The curriculum should be differentiated at both levels to provide maximum opportunity for the many aspects of individual variations found among students.

Creativity and its development are important for the individual as well as for the nation. Creativity has been neglected in the past for various reasons. Often the atmosphere of the classroom has discouraged it by rewarding conformity. Overcrowded classrooms present few opportunities for divergence, and overworked teachers have little time for discovering and nurturing talent.

Today's school should foster creativity in two ways: by providing the facilities and materials for each student's development, for every student has *some* creativity in *some* area; and by identifying highly creative children and giving special attention to them.

Creativity and individualism have been important in the dynamism and growth of American civilization in the past. Their importance will increase. They are needed in improving skills, ideas, and products for an expanding market, in the global conflict between democracy and communism, and in providing a personal, therapeutic counterforce to conformity and cultural homogeneity.

MAINTAINING INTEGRITY AND COURAGE

While recognizing that the development of character is a primary responsibility of other educative agencies—the home, church, and community—the public schools are aware of their significant role in the personal development of students.

In a complex and uncertain age, moral courage is increasingly important. Courage to take a stand apart from the crowd, to make difficult decisions between unclear alternatives, and to follow a pattern of living consistent with personal beliefs will be even more essential in the years to come.

The self-discipline that enables individuals to put aside immediate rewards for future gains and to see the whole as well as the parts also will be essential. It is incumbent upon the schools to give attention to discipline, not as an end in itself or as punishment but as a means of developing attitudes conducive to responsible citizenship and to more orderly personal living.

A system of moral and spiritual values is indispensable both to individual integrity and to group living. No society can survive without a moral order sustained by the individual. As our social organization becomes more complex and as rapid changes create a greater sense of personal insecurity, the need for personal integrity and courage becomes ever more imperative. The school's responsibility and challenge become greater also.

The strength of a nation lies not in armaments but in the heart, mind, spirit, and conscience of the people. Its morality lies not in laws and government but in the honesty and moral responsibility of its citizens.

IN CONCLUSION

The American people have demanded much from their schools, and they have rarely been disappointed. They have looked with high expectation toward the ability of the schools to help create a better tomorrow. Today, as in the past, Americans continue to look to the schools with high expectations, perhaps higher than at any time in our history.

The great debate on American education which began shortly after World War II arose in part from the fact that citizens *do* care about public education. The present period of national ferment over the schools has provided educators with a rich opportunity to learn from the general public. It also has provided the public with an opportunity to learn from educators.

Each generation of Americans paints a somewhat different picture of education within the framework of basic national needs and individual values. Horace Mann took into account the stirrings of the Industrial Revolution and the effects of the Jacksonian era. Dewey considered mass immigration and the spirit of the progressive era. Today educators need to take into account the new influences outlined in this book as they strive to move education forward in its dual roles of service and leadership. These are roles that will provide a better tomorrow for the individual and a fuller realization of our nation's democratic ideals.

APPENDIX A / *A Summary List of Issues and Recommendations*

Decision Area I

DECISION MAKING

Who should make what decisions about education?

LOCAL SCHOOL BOARDS

Recommendation 1: Local school boards are the legal instruments through which the state fulfills its responsibility for education. The distinction between lay control of school policies determined by the board of education and implementation of these policies by the professional staff, with the leadership of the local superintendent, should be delineated, understood, and respected.

FEDERAL GOVERNMENT

Recommendation 2: The federal government should provide the types of assistance needed to improve local and state systems of education. Two types of federal assistance should be stressed: (a) The federal government should provide general financial assistance for the improvement of public education; (b) the U.S. Office of Education should have an expanded role in stimulating experimentation and innovation in the schools, in providing statistical analyses of importance, and in disseminating information about educational problems and promising practices.

LOCAL SCHOOL FACULTIES

Recommendation 3: Local school faculties should have the freedom and the authority to make decisions about what to teach—within state and local requirements—and how to teach. Final instructional decisions should be made by the teacher, taking into consideration recommendations from appropriate local, state, and national groups representing the teaching profession, academic scholars, and the public.

STATE EDUCATIONAL AUTHORITIES

Recommendation 4: State educational authorities should establish standards for public school instruction, provide adequate resources for their achievement, and give dynamic leadership to curriculum development, experimentation, and innovation in local schools.

STATE LEGISLATURES

Recommendation 5: State legislatures should set forth general goals for the schools, provide adequate financial support, and delegate broad powers of implementation to the state and local educational authorities. The state legislature should *not* prescribe curriculum content or legislate specific courses.

Decision Area II

RESEARCH, EXPERIMENTATION, AND INNOVATION

How can an extensive program of educational research, experimentation, and innovation be developed?

MONEY, TIME, AND PERSONNEL

Recommendation 6: School systems should allocate an appropriate proportion of their annual operating budgets—not less than 1 percent—for the support of research, experimentation, and innovation.

Adequate time should be provided for each staff member to participate in curriculum planning, research, evaluation, and other activities designed to improve the instructional program.

REGIONAL CURRICULUM AND INSTRUCTION CENTERS

Recommendation 7: Adequately staffed and supported regional curriculum and instruction centers should be encouraged. These centers, located mainly in universities, should work in partnership with local schools to initiate innovation and conduct experimentation and research to improve the instructional program of the public schools.

NON-GOVERNMENTAL GROUPS

Recommendation 8: Efforts of nationally oriented, nongovernmental groups to stimulate curricular and instructional experimentation and innovation should be encouraged. Scholars in the academic fields and the teaching profession should be involved in such efforts.

DECISION AREA III

EDUCATING ALL CHILDREN AND YOUTH*

How can the instructional program of the school be designed to develop the individual potentialities of all members of the school population within the framework of a society that values both unity and diversity?

THE INDIVIDUAL AND THE NATION

RECOMMENDATION 9: The instructional program should provide (a) opportunities for developing the individual potentialities represented in the wide range of differences among people; (b) a common fund of knowledge, values, and skills vital to the welfare of the individual and the nation.

To achieve these objectives, the instructional program cannot be the same for all. Provision for individual differences should be made by qualified teaching personnel through diagnosis of learning needs and through appropriate variety of content, resources for learning, and instructional methods.

DECISION AREA IV

ESTABLISHING PRIORITIES FOR THE SCHOOL

What are the distinctive responsibilities of the school in contrast to those that are distinctive to the family, the church, industry, and various youth-serving agencies?

What responsibilities should the school share with other institutions and with other youth-serving agencies?

What, then, should be included in the school program?

What should be excluded from it?

DISTINCTIVE AND SHARED RESPONSIBILITIES

RECOMMENDATION 10: Priorities for the school are the teaching of skills in reading, composition, listening, speaking (both native and foreign languages), and computation . . . ways of creative and disciplined thinking, including methods of inquiry and application of knowledge . . . competence in self-instruction and independent learning . . . fundamental understanding of the humanities and the arts, the social sciences and natural sciences, and mathematics . . . appreciation of and discriminating taste in literature, music, and the visual arts . . . instruction in health education and physical education.

---

* Decision Areas III through IX, including Recommendations 9 through 19, are related to "Deciding What To Teach."

Responsibilities best met by joint efforts of the school and other social agencies include development of values and ideals . . . social and civic competence . . . vocational preparation.

The decision to include or exclude particular school subjects or outside-of-class activities should be based on (a) the priorities assigned to the school and to other agencies; (b) data about learners and society and developments in the academic disciplines; (c) the human and material resources available in the school and community.

DECISION AREA V

THE SCHOOL'S ROLE IN DEALING WITH NATIONAL PROBLEMS RELATED TO YOUTH

What is the school's role in dealing with serious national problems such as youth unemployment and juvenile delinquency?

YOUTH UNEMPLOYMENT AND JUVENILE DELINQUENCY

RECOMMENDATION 11: The schools can help to combat such serious national problems as youth unemployment and juvenile delinquency by (a) evaluating the intellectual and creative potential of *all* children and youth in the schools; (b) identifying early the potential dropout and delinquent; (c) developing positive programs to challenge these young people to educational endeavor; (d) participating in cooperative programs with parents and with community groups and organizations—business and industry, labor, service groups, government agencies, and the many youth-serving agencies.

Decision Area VI

TEACHING ABOUT CONTROVERSIAL ISSUES AND ABOUT COMMUNISM

What is the school's role in teaching about controversial issues and about communism and other ideologies?

CONTROVERSIAL ISSUES

Recommendation 12: Rational discussion of controversial issues should be an important part of the school program. The teacher should help students identify relevant information, learn the techniques of critical analysis, make independent judgments, and be prepared to present and support them. The teacher should also help students become sensitive to the continuing need for objective re-examination of issues in the light of new information and changing conditions in society.

CURRENT SOCIAL FORCES AND TRENDS

Recommendation 13: To help the student think critically about current issues, the curriculum should provide opportunities for adequate instruction concerning social forces and trends. Attention commensurate with their significance in modern society should be given to issues such as international relations, economic growth, urbanization, population growth, science and technology, and mass media.

TEACHING ABOUT COMMUNISM

Recommendation 14: The school curriculum should include a study of political and social ideologies focusing upon communism. The methods of rational inquiry should be stressed. The study should be set in the perspective of the modern world and be incorporated into the instructional program at appropriate points. If a special unit on communism is deemed desirable in the secondary school, it should supplement and complement earlier study of these topics.

As with other areas of the curriculum, decisions about *what to teach* and *how to teach* about these topics should be based upon policies developed by school administrators and teachers of the local school system. In the formulation and implementation of such policies, school personnel should utilize the resources of scholarship and be supported in their decisions by the school board and by an informed community opinion.

Decision Area VII

A BALANCED PROGRAM

How can the school provide a balanced program for the individual and maintain it amidst various pressures for specialization?

WAYS OF ACHIEVING BALANCE

Recommendation 15: The school can provide and maintain a curriculum appropriately balanced for each student by offering a comprehensive program of studies, making early and continuous assessment of individual potentialities and achievements, and providing individualized programs based on careful counseling.

To avoid the imbalance that can result from limiting financial support to certain selected subjects and services, general financial support should be provided for the total program. This applies to local, state, and federal support.

Decision Area VIII

SELECTING CONTENT

How can schools make wise selections of content from the ever-growing body of available knowledge?

BASES FOR SELECTING CONTENT

Recommendation 16: The objectives of the school, with a clear statement of priorities, should give direction to all curriculum planning. This applies to adding content, eliminating content, or changing the emphases on various topics and fields of study.

Recommendation 17: Each curriculum area should be under continuous study and evaluation and should be reviewed periodically. One purpose of such reviews is to determine whether recent findings in the academic disciplines are, or should be, reflected in the instructional program. These reviews should utilize the knowledge and skills of the teacher, the school administrator, the scholar in the academic disciplines, the scholar in the profession of teaching, and the lay citizen, each contributing his special competence to the total task.

KEEPING CONTENT UP TO DATE

Recommendation 18: In making selections of content, school staffs should study the results and recommendations of curriculum projects sponsored by nationally oriented groups with a view to applying promising findings.

NATIONAL CURRICULUM PROJECTS

There should be a systematic procedure for studying the results of these curriculum projects. The procedure should recognize the importance of balance and continuity in the total school experience of students and include the steps prerequisite to curriculum changes.

Decision Area IX

ORGANIZING CONTENT

How should the content of the curriculum be organized?

Recommendation 19: The content of the curriculum should be organized in such ways that students may progress, from early to later school years, toward an increasingly mature utilization and organization of their knowledge. Helping learners see interrelationships and achieve unity from the diversity of knowledge is basic to any organization of content.

BASES FOR ORGANIZING CONTENT

School staffs should experiment with a variety of ways of organizing content. The nature, meaning, and structure of the discipline and differences in the ways students learn should be taken into account in selecting a particular plan of organization and evaluating its effectiveness.

Decision Area X

ORGANIZING THE CURRICULUM*

How should the curriculum of the school be organized to give appropriate direction to the instructional process?

EDUCATIONAL OBJECTIVES

Recommendation 20: The aims of education should serve as a guide for making decisions about curriculum organization as well as about all other aspects of the instructional program.

The public, through the local school board, is responsible for determining the broad aims of education. The professional staff is responsible for translating the broad aims into specific objectives that indicate priorities and define clearly the behaviors intended for the learners. The local board of educaton has responsibility for seeing that an acceptable statement of objectives and priorities is prepared and for endorsing such a statement.

CURRICULAR SEQUENCE

Recommendation 21: In each curricular area, the vertical organization of subject matter should take account of (a) the logical structure of the subject; (b) the difficulty of material as related to the student's intellectual maturity; (c) the relation of the field to other fields.

Procedures and instruments for evaluating pupil progress must be specifically geared to the school's educational goals and to the curricular sequence in use in the school.

WHEN TO TEACH WHAT

Recommendation 22: The fact that very young children *can* learn relatively difficult aspects of science, mathematics, and other subjects is at best an incomplete answer to the question of whether they *should* learn them at this particular stage of their development. Decisions about *when to teach what* should be based on both the learner's ability to understand and the relative importance of alternative ways of using the learner's time at any given point in his school experience.

---

* Decision Areas X through XII, including Recommendations 20 through 33, are related to "Planning and Organizing for Teaching."

DECISION AREA XI

ORGANIZING THE SCHOOL AND THE CLASSROOM

How should the school and the classroom be organized to make the most effective use of the time and talents of students and teachers?

NONGRADING, MULTIGRADING, GRADING

RECOMMENDATION 23: The vertical organization of the school should provide for the continuous, unbroken, upward progression of all learners, with due recognition of the wide variability among learners in every aspect of their development. The school organization should, therefore, provide for differentiated rates and means of progression toward achievement of educational goals.

Nongrading and multigrading are promising alternatives to the traditional graded school and should be given careful consideration in seeking to provide flexible progress plans geared to human variability.

BASES FOR ABILITY GROUPING

RECOMMENDATION 24: The assignment of pupils to classroom groups should be based on knowledge about students and teachers and on understanding of goals to be achieved.

Efforts to set up groups in terms of ability and/or achievement do little to reduce the over-all range of pupil variability with which teachers must deal. However, selective grouping and regrouping by achievement sometimes is useful, particularly at the secondary school level.

TEAM TEACHING

RECOMMENDATION 25: In order to provide individually planned programs for learners, taking into account the specific objectives to be achieved, the horizontal organization of the school should permit flexibility in assigning pupils to instructional groups that may range in size from one pupil to as many as a hundred or more. Well-planned cooperative efforts among teachers—efforts such as team teaching, for example—should be encouraged and tested.

SELF-CONTAINED CLASSROOM

RECOMMENDATION 26: The school should be organized in such a way that it provides opportunity for each student to (a) experience continuity and relatedness in his learning, and (b) have a close counseling relationship with competent teachers who know him well. Various forms of organization should be explored to determine their effectiveness for these purposes.

The contributions of specialized personnel should be used as students progress through the elementary and secondary school. At whatever point specialized personnel are brought into the instructional program, their work should be coordinated with and related to the total program.

CLASSROOM GROUPING

Recommendation 27: In schools where the classroom is the unit of organization, teachers should organize learners frequently into smaller groups of varying types and sizes. Decisions as to size and membership of such groups should be based on knowledge about learners and on the specific educational purposes to be served at a given time for each learner.

Decision Area XII

INSTRUCTIONAL MATERIALS, TECHNOLOGY, SPACE

How can the quality of instructional materials be improved?

How can the products of modern technology be used effectively?

How can space be designed and used to support the instructional program?

INSTRUCTIONAL MATERIALS CENTERS

Recommendation 28: In each school system, there should be one or more well-planned instructional materials and resources centers, consisting of at least a library and an audiovisual center. In each school building, there should also be an instructional resources facility.

These centers should be staffed by persons who are adequately prepared in curriculum and instruction, in library service, and in audiovisual education.

ETV AND RADIO

Recommendation 29: The use of educational television (ETV) and radio to broaden and deepen learning should be encouraged. Such use should be accompanied by a vigorous program of research and experimentation.

PROGRAMED INSTRUCTION

Recommendation 30: Schools should make use, with proper supervision, of self-instructional materials and devices (programed instruction) that facilitate varied learning opportunities and continuous progress for learners of widely divergent abilities. The use of programed instruction should be accompanied by a vigorous program of research and experimentation.

INSTRUCTIONAL MEDIA

Recommendation 31: A comprehensive study and action program is needed to improve the quality and use of printed teaching materials and other instructional media. Such a study and action program requires the participation of both the producers and the consumers of these instructional materials and media.

AUTOMATION

Recommendation 32: School authorities should examine the potentialities of automation for storage and retrieval of pupil personnel data and instructional materials.

SPACE UTILIZATION

Recommendation 33: New concepts of space should permit and encourage (a) varying sized groups ranging from small seminars to multiple-class; (b) independent study with visual and/or acoustic privacy as required; (c) access to a variety of instructional media; (d) multiple use.

Key considerations in planning for better utilization of space are (a) flexibility and (b) environment which respects the learner and his need for a sense of amenity if his learning is to be most efficient.

APPENDIX B / *Notes and Footnotes*

CHAPTER ONE

1. Niebuhr, Reinhold. *Our Moral and Spiritual Resources for International Cooperation.* U.S. National Commission for UNESCO, Citizen Consultation Series. Washington, D.C.: the Commission, 1956. p. 36.

CHAPTER TWO

1. Michael, Donald W. *Some Implications for American Society Inherent in the Extensive Use of Automation and Computers.* A working paper prepared for the Center for the Study of Democratic Institutions. Santa Barbara, Calif.: the Center, July 1961. pp. 1-5.
2. Wiener, Norbert. "Some Moral and Technical Consequences of Automation." *Science* 131: 1356; May 6, 1960.
3. Ryder, N. B. *Variabilities and Convergence in American Population.* Address given at the annual meeting of the National Education Association Department of Elementary School Principals, St. Louis, March 26-30, 1960. Washington, D.C.: the Association, 1960. pp. 7-8.
4. Gulick, Luther, editor. "Notes on the Theory of Organization." *Papers on the Science of Administration.* New York: Institute of Public Administration, Columbia University, 1937. p. 3.
5. Spencer, Herbert. "A Society Is an Organism." *The Principles of Sociology.* New York: Meredith Press (D. Appleton and Co.), 1884. Vol. 1, pp. 467-80.
6. U.S. Department of Commerce. *Statistical Abstract of the United States.* Eighty-second annual edition. Washington, D.C.: Government Printing Office, 1961. p. 534.
7. For another explanation of this theory, see the following:

Schwab, Joseph J. "Inquiry, the Science Teacher, and the Educator." *School Review* 68: 176-95; Summer 1960.

8. Finn, James D. "A New Theory for Instructional Technology." *AV Communication Review* 8: 84-94; Winter 1960.
9. Fry, Edward B., and others. "Teaching Machines: An Annotated Bibliography." *AV Communication Review* 8: 5-7; 1960. Supplement 1.
10. American Educational Monthly. "School Machinery." *American Educational Monthly* 10: 150-57; April 1873.
11. National Education Association, Project on the Instructional Program of the Public Schools. *The Principals Look at the Schools: A Status Study of Selected Instructional Practices.* Washington, D.C.: the Association, 1962. pp. 21-22.
12. *Ibid.*, pp. 9-10.
13. *Ibid.*, pp. 1-2.
14. U.S. Department of Health, Education, and Welfare, Office of Education. *Soviet Education Programs.* Office of Education Bulletin 1960, No. 17. Washington, D.C.: Government Printing Office, 1960. p. 38.
15. The points made about elementary school science programs generally agree with other assessments and studies. These reports are summarized in the following publication: Mallinson, George C., and Mallinson, Jacqueline V. "Science in the Elementary Grades." *Review of Educational Research* 31: 235-47; June 1961.
16. National Education Association, National Commission on Teacher Education and Professional Standards. *New Horizons for the Teaching Profession.* Washington, D.C.: the Association, 1961. p. 28.
17. Commager, Henry Steele. "Our Schools Have Kept Us Free." (Editorial) *Life* 29: 46-47; October 1950.
18. National Education Association, Committee on Tax Education and School Finance. *Public Opinion Polls on American Education.* Washington, D.C.: the Association, 1958. p. 15.
19. National Education Association, Project on the Instructional Program of the Public Schools. *Op. cit.* p. 7.

CHAPTER THREE

1. Rockefeller Panel Reports. *Prospects for America.* Garden City, N.Y.: Doubleday & Co., 1961. p. 322.
2. Smith, Adam. *The Wealth of Nations.* Cannon edition. New York: Modern Library, 1937. p. 81.
3. Groves, Harold M. *Education and Economic Growth.* Washington, D.C.: Committee on Educational Finance, National Education Association, 1961. p. 8.
4. U.S. Department of Labor, Bureau of Labor Statistics. *Employment and Earnings* 8: 11; December 1961.
5. U.S. Department of Labor, Bureau of Labor Statistics. "Marital and Family Characteristics of Workers, March 1960." Special Labor Force Report No. 13. *Monthly Labor Review,* April 1961. p. 9.
6. U.S. Department of Labor, Bureau of Labor Statistics. "Labor Force and Employment in 1960." Special Labor Force Report No. 14. *Monthly Labor Review,* April 1961. Table C-6.
7. Wolfle, Dael. "Education and New Approaches to Manpower." *Teachers College Record* 57: 290-94; February 1956.
8. National Science Foundation. *The Long-Range Demand for Scientific and Technical Personnel: A Methodological Study.* Washington, D.C.: Government Printing Office, 1961. p. 27.
9. Galbraith, John Kenneth. *The Affluent Society.* Boston: Houghton Mifflin Co., 1958. p. 272.
10. U.S. Department of Labor. *Manpower Challenge of the 1960's.* Washington, D.C.: Government Printing Office, 1960. pp. 4, 14.
11. U.S. Department of Labor, Bureau of Labor Statistics. *Employment and Earnings* 8: 6; December 1961. p. iii.
12. President's Scientific Research Board. *Manpower for Research.* Science and Public Policy, Vol. 4. Washington, D.C.: Government Printing Office, October 11, 1947. p. 1.
13. Schultz, Theodore W. "Education and Economic Growth." *Social Forces Influencing American Education.* (Edited by Ralph W. Tyler.) Sixtieth Yearbook, Part II, National So-

ciety for the Study of Education. Chicago: University of Chicago Press, 1961. Chapter 3, p. 46. Other economists have made the same point: (a) Stein, Herbert, and Denison, Edward F. "High Employment and Growth in the American Economy." *Goals for Americans.* Report of the President's Commission on National Goals. New York: Prentice-Hall, 1960. p. 80; (b) Vaizey, John. "Comparative Education." *Comparative Education Review* 5: 7-12; June 1961.

14. Schultz, Theodore W. *Op. cit.* p. 82.
15. Joint Economic Committee. *Staff Report on Employment, Growth, and Price Levels.* Washington, D.C.: Government Printing Office, December 1959. p. 55.

CHAPTER FOUR

1. Douglas, Paul H. "The Central Problem of Economic Giantism." *Problems of United States Economic Development.* New York: Committee for Economic Development, 1958. Vol. 1, p. 99.
2. Litwak, Eugene. "Models of Bureaucracy Which Permit Conflict." *American Journal of Sociology* 67: 177-84; September 1961.
3. Moffitt, Donald A. "Individualist Displaces the Organization Man in Many Organizations." *Wall Street Journal,* November 22, 1961.

CHAPTER FIVE

1. These factors are based upon an analysis published in this source by the following author: De Grazia, Sebastian. "Tomorrow's Good Life." *Teachers College Record* 61: 379-85; April 1960.
2. U.S. Bureau of the Census. *Multiple Job Holding: July 1957.* Current Population Reports, Series P-50, No. 80. Washington, D.C.: Government Printing Office, February 1958. p. 2.
3. U.S. Bureau of the Census. *Multiple Employment and Pay*

Status of Persons with a Job But Not at Work: July 1950. Current Population Reports, Series P-50, No. 30. Washington, D.C.: Government Printing Office, March 31, 1951. p. 1.

4. Schiffman, Joseph. *Multiple Jobholders in December 1960.* U.S. Department of Labor, Bureau of Labor Statistics, Special Labor Report No. 18. Washington, D.C.: Government Printing Office, 1961.
5. Norris, Willa, and Hecker, Stanley E. "Are Michigan Educators Moonlighters?" *Michigan Education Journal* 39: 559-61; May 1, 1962.
6. De Grazia, Sebastian. *Op. cit.* p. 382.
7. De Grazia, Sebastian. *Of Time, Work, and Leisure.* New York: Twentieth Century Fund, 1962. pp. 14-15, 348.
8. Tables 1 and 2 and their explanations are from the following source: De Grazia, Sebastian. "The Uses of Time." *Aging and Leisure: A Research Perspective into the Meaningful Use of Time.* (Edited by Robert W. Kleemeier.) New York: Oxford University Press, 1961. pp. 118-21.
9. For additional information, see the following: Curtis Publishing Company, Research Department. *The Travel Market Among U.S. Families with Incomes of $5,000 or More.* Philadelphia: the Company, 1955.
10. Philip Leslie Company. *Report on Amateur Music in the United States.* Prepared for the American Music Conference. Chicago: the Company, 1962. p. 4.
11. Jewish Theological Seminary of America. *The New Leisure.* Report of the Conference on the New Leisure, March 14-15, 1956. New York: the Seminary, 1956. Part I, p. 21-25.

CHAPTER SIX

1. Statistics were supplied by George Gerbner, associate professor of communications, Institute of Communications Research, University of Illinois, Urbana.
2. Star, Shirley A., and Hughes, Helen MacGill. "Report on an Educational Campaign: The Cincinnati Plan for the

United Nations." *American Journal of Sociology* 55: 389-400; January 1950.

3. Merton, Robert K. Introduction to *New York Television: January 4-10, 1951-52.* (by Dallas W. Smythe.) Urbana, Ill.: New York TV Monitoring Study No. 4, 1952. p. v.
4. Schramm, Wilbur. *Television in the Lives of Our Children.* Stanford, Calif.: Stanford University Press, 1961. p. 31.
5. Schramm, Wilbur. "Television in the Life of the Child—Implications for the School." *New Teaching Aids for the American Classroom.* Stanford, Calif.: Institute for Communication Research, Stanford University, 1960. p. 58.
6. Schramm, Wilbur, and others. "Children's Learning from Television." *Studies in Public Communication* 3: 86-98; Summer 1961.
7. Himmelweit, Hilde T. *Television and the Child.* New York: Oxford University Press, 1958. p. 308.
8. National Education Association, Department of Classroom Teachers and Department of Audiovisual Instruction. *And TV, Too!* Washington, D.C.: the Association, 1961. p. 14.
9. Ford Foundation and Fund for the Advancement of Education. *Teaching by Television.* New York: the Fund, 1961. p. 4.
10. (a) Holmes, P. D., Jr. *Television Research in the Teaching-Learning Process.* New York: National Educational Television and Radio Center, 1960; (b) Schramm, Wilbur. "What We Know About Learning from Instructional Television." *Educational Television: The Next Ten Years.* Stanford, Calif.: Institute for Communication Research, 1962. p. 53.
11. Kumata, Hideya. "A Decade of Teaching by Television." *The Impact of Educational Television.* (Edited by Wilbur Schramm.) Urbana: University of Illinois, 1960. pp. 184-85.

CHAPTER SEVEN

1. Gottmann, Jean. *Megalopolis.* New York: Twentieth Century Fund, 1961. p. 27.

2. Carter, Richard F. *Memorandum on Current Status of CAST Project.* Report on the Stanford Communication Project for the Long Island School-Community Relations Association meeting. Stanford, Calif.: Institute of Communication Research, Stanford University, March 23, 1962. p. 4.
3. Tyler, Ralph W. "Relations of the Urban Community and the Modern School." *The School and the Urban Community.* (Edited by William C. Reavis.) Chicago: University of Chicago Press, 1942. Vol. 5, p. 4.
4. When adjusted for annexations or legal expansion of the boundaries of the central city, suburban areas grew over forty times as fast as the central cities between 1950 and 1960, if the 1950 boundaries are used as the base of measurement. For support of these statistics, see the following: Schnore, Leo F. "Municipal Annexations and the Growth of Metropolitan Suburbs, 1950-60." *American Journal of Sociology* 67: 406-17; January 1962.
5. Wood, Robert C. *Metropolis Against Itself.* New York: Committee for Economic Development, 1959. p. 17.
6. Whyte, William H. *The Organization Man.* New York: Simon and Schuster, 1956. 429 pp.
7. Burgess, Ernest W. "Urban Areas." *Chicago: An Experiment in Social Research.* (Edited by T. V. Smith and Leonard D. White.) Chicago: University of Chicago Press, 1929. pp. 114-23.
8. Rainey, Homer P., and others. *How Fare American Youth?* Report to the American Youth Commission of the American Council on Education. New York: D. Appleton-Century Co., 1937. pp. 34-35.
9. U.S. Department of Labor, Bureau of Labor Statistics. *Employment and Earnings* 8: 11; December 1961.
10. This section draws upon materials found in the following source: Havighurst, Robert J., and Neugarten, Bernice L. *Society and Education.* Revised edition. Englewood Cliffs, N.J.: Allyn and Bacon, 1962. Chapter 13.
11. Detroit Area Study. *Family Income in Greater Detroit: 1951-1959.* Ann Arbor, Mich.: Survey Research Center, 1960.

12. New York City Public Schools, Statistical Section. *Sixtieth Annual Report of the Superintendent of Schools.* New York: Board of Education, n.d.

13. U.S. 87th Congress, 2nd Session, House Committee on Government Operations. *Reorganization Plan No. 1 for 1962: To Create a Department of Urban Affairs and Housing.* Statement of the American Jewish Committee. Washington, D.C.: Government Printing Office, 1962. p. 108.

14. Havighurst, Robert J. "Social-Class Influences on American Education." *Social Forces Influencing American Education.* (Edited by Ralph W. Tyler.) Sixtieth Yearbook, National Society for the Study of Education. Chicago: University of Chicago Press, 1961. p. 140.

15. Havighurst, Robert J. *The Urban Lower Class School.* Paper presented at the Human Development Symposium, University of Chicago, April 14, 1962. Chicago: the Author (University of Chicago), 1962. 24 pp.

16. Druding, Aleda. "Stirrings in the Big Cities." *NEA Journal* 51: 48-51; February 1962.

17. The Higher Horizons Program is an attempt by the New York City Board of Education to discover ways to raise the educational and vocational aspirations of disadvantaged pupils. The Program began by assigning extra teaching and guidance personnel and experimenting with new methods in the third grades of 31 elementary schools and the seventh grades of 13 junior high schools. While maintaining the Program at the third and seventh grade levels, Higher Horizons is moving forward with the children through high school graduation.

18. National Education Association, Educational Policies Commission. *Education and the Disadvantaged American.* Washington, D.C.: the Association, 1962. p. 37.

19. Mumford, Lewis. *The Culture of Cities.* New York: Harcourt, Brace and Co., 1938. p. 475.

20. National Education Association, Educational Policies Commission. *The Central Purpose of American Education.* Washington, D.C.: the Association, 1961. p. 11.

CHAPTER EIGHT

1. United Nations, Department of Economic and Social Affairs. *The Future Growth of World Population.* Document St/SOA/Ser.A/28. New York: United Nations, 1958. p. v.
2. Dillon, Douglas. "Strengthening the Economic Foundations of the Free World." *Department of State Bulletin* 39: 869-73; December 1, 1958.
3. U.S. Department of Commerce, Bureau of the Census. *United States Census of Population, 1960. United States Summary: Number of Inhabitants.* Washington, D.C.: Government Printing Office, 1961. Table 2, pp. 1-4.
4. Taeuber, Conrad, and Taeuber, Irene. *The Changing Population of the United States.* New York: John Wiley & Sons, 1958. p. 51.
5. Population Reference Bureau. "U.S.A. Population Growth: Projections to 1980." *Population Bulletin* 15: 38; May 1959.
6. U.S. Department of Commerce, Bureau of the Census. *United States: General Social and Economic Characteristics.* Advance Report: 1960 Census of the Population, No. PC(A3)-1. Washington, D.C.: Government Printing Office, April 27, 1962. p. 2.
7. Bernert, Eleanor H., and Nam, Charles B. "Demographic Factors Affecting American Education." *Social Forces Influencing American Education.* (Edited by Ralph W. Tyler.) Sixtieth Yearbook, Part II, National Society for the Study of Education. Chicago: University of Chicago Press, 1961. p. 92.
8. These figures are based on the following sources: (a) U.S. Department of the Interior. *Historical Statistics of the United States: Colonial Times to 1957.* Series A 71-85. Washington, D.C.: Government Printing Office, 1960. p. 10; (b) Havighurst, Robert J., and Neugarten, Bernice L. *Society and Education.* Revised edition. Englewood Cliffs, N.J.: Allyn and Bacon, 1962. p. 284; (c) U.S. Department of Commerce, Bureau of the Census. *United States Census of Population, 1960. United States Summary: General Popu-*

lation Characteristics. Washington, D.C.: Government Printing Office, 1961. Table 47, pp. 1-153.

9. Bernert, Eleanor H., and Nam, Charles B. *Op. cit.* pp. 94-95.
10. U.S. Department of Commerce, Bureau of the Census. *Fall School Enrollment at 46 Million.* Current Population Reports. Population Characteristics, No. 107, Series P-20. Washington, D.C.: Government Printing Office, January 16, 1961. p. 1.
11. Bernert, Eleanor H., and Nam, Charles B. *Op. cit.* p. 117.
12. National Education Association, Special Project on School Finance. *Financing the Public Schools, 1960-1970.* Washington, D.C.: the Association, 1962. p. 102.
13. Hobson, Carol Joy, and Schloss, Samuel. *Enrollment, Teachers, and Schoolhousing.* U.S. Department of Health, Education, and Welfare, Office of Education, Circular No. 703. Washington, D.C.: Government Printing Office, 1963. pp. 32-33.
14. Hauser, Philip M. "Population—Gap in the Curriculum." *Teachers College Record* 63: 425-33; March 1962.

CHAPTER NINE

1. Ranked on the basis of frequency of discussion, the major issues were educational priorities, racial discrimination in education, the language of instruction, public and private education, educational appropriations, literacy, fundamental and adult education, and free and compulsory education. For elaboration, see: Miller, Richard I. *United Nations Trusteeship System and Educational Advancement.* Doctor's thesis. Teachers College, Columbia University, 1958. p. 355.
2. U. Thant. "Education and International Misunderstanding." *Teachers College Record* 63: 1-7; October 1961.
3. Myrdal, Gunnar. *Economic Theory and Under-Developed Regions.* London: Gerald Duckworth and Co., 1957. pp. 11-22.
4. Kant, Immanuel. *Perpetual Peace.* Los Angeles: U.S. Library Association, 1932. p. 18.

5. Transcript of President Kennedy's remarks at the University of North Carolina Convocation. *New York Times,* October 13, 1961.
6. Text of Winston Churchill's address at Fulton, Missouri. *New York Times,* March 6, 1946.
7. Viorst, Milton. "Stevenson Warns U.S. Must Reclaim Ideals." *Washington Post,* January 19, 1959.
8. Morgenthau, Hans J. *Politics Among Nations.* Second edition. New York: Alfred A. Knopf, 1955. p. 121.
9. De Tocqueville, Alexis. *Democracy in America.* New York: D. Appleton and Co., 1901. Vol. 2, p. 483.
10. Piaget, J., and Weil, Anne-Marie. "The Development in Children of the Idea of the Homeland and of Relations with Other Countries." *International Social Science Bulletin* 3: 561-78; Autumn 1951.
11. Miller, Richard I. *Op. cit.* pp. 268-69.
12. Almy, Millie. "Wishful Thinking About Children's Thinking." *Teachers College Record* 62: 396-406; February 1961.
13. This description of the Glens Falls Project is taken from the following report: National Education Association, Project on the Instructional Program of the Public Schools. *Current Curriculum Studies in Academic Subjects.* (Prepared by Dorothy M. Fraser.) Washington, D.C.: the Association, 1962. pp. 80-81.

CHAPTER TEN

1. National Education Association, Project on the Instructional Program of the Public Schools. *The Scholars Look at the Schools: A Report of the Disciplines Seminar.* Washington, D.C.: the Association, 1962. p. 4.
2. National Education Association, Educational Policies Commission. *The Central Purposes of American Education.* Washington, D.C.: the Association, 1961. p. 12.

APPENDIX C / *Officials of the National Education Association, the National Committee, and Others Involved in This Volume*

NEA OFFICIALS

Robert Wyatt	President*
William G. Carr	Executive Secretary
Lyle W. Ashby	Deputy Executive Secretary
Lawrence G. Derthick	Assistant Executive Secretary for Educational Services

* The NEA presidents in office during the life of the Project were: Hazel A. Blanchard, Ewald Turner, and Clarice Kline.

NATIONAL COMMITTEE

Melvin W. Barnes, *Chairman*
Superintendent of Schools
Portland, Oregon

Thomas G. Pullen, Jr., *Vice-Chairman*
State Superintendent of Schools
Baltimore, Maryland

William M. Alexander
Professor of Education
University of Florida
Gainesville, Florida

Sarah C. Caldwell
Teacher
Kent Junior High School
Akron, Ohio

Hollis L. Caswell
President Emeritus
Teachers College, Columbia University
New York, New York

Joe A. Chandler
Executive Secretary
Washington Education Assn.
Seattle, Washington

Rufus E. Clement
President
Atlanta University
Atlanta, Georgia

Marion Cranmore
Principal
Burns Park School
Ann Arbor, Michigan

Carol Douglass
College of Education
University of South Florida
Tampa, Florida

Robert J. Havighurst
Professor of Education
University of Chicago
Chicago, Illinois

James D. Logsdon
Superintendent
Thornton Township High School and Junior College
Harvey, Illinois

Philip H. Phenix
Professor of Education
Teachers College, Columbia University
New York, New York

I. James Quillen
Dean
School of Education
Stanford University
Stanford, California

G. Baker Thompson
Superintendent of Schools
Delaware County
Media, Pennsylvania

STAFF

Ole Sand, Director

Richard I. Miller, Associate Director

Margery Thompson, Program Specialist

Therese Fleishman, Margaret Overington, and Marjorie Glenton, Staff Assistants

REVIEWING COMMITTEE FOR THIS VOLUME

Rufus E. Clement
President
Atlanta University
Atlanta, Georgia

Robert J. Havighurst
Professor of Education
University of Chicago
Chicago, Illinois

Ralph McGill
Atlanta Constitution
Atlanta, Georgia

I. James Quillen
Dean
School of Education
Stanford University
Stanford, California

Ralph W. Tyler
Director
Center for Advanced Study
in the Behavioral Sciences
Stanford, California

PARTICIPANTS IN SEMINAR ON SOCIAL FORCES AND TRENDS

Ralph W. Tyler, *Chairman*
Director
Center for Advanced Study
in the Behavioral Sciences
Stanford, California

Lee Benson
Department of History
Columbia University
New York, New York

Moe L. Frankel
Director
Joint Council on Economic
Education
New York, New York

Ralph H. Gabriel
Sterling Professor of History
Emeritus, Yale University
Professor of American Civilization,
American University
Washington, D.C.

Morris Janowitz
Professor of Sociology
University of Chicago
Chicago, Illinois

Harold D. Lasswell
Professor of Law and Political Science
Yale University
New Haven, Connecticut

Dorothy Lee
Lecturer on Anthropology
Harvard University
Cambridge, Massachusetts

Hans J. Morgenthau
Director
Center for the Study of American Foreign Policy
University of Chicago
Chicago, Illinois

Vincent Ostrom
Associate Professor of Political Science
University of California
Los Angeles, California

Joseph J. Schwab
Professor of Education, and
William Rainey Harper
Professor of Biology
University of Chicago
Chicago, Illinois

Harold Taylor
Former President
Sarah Lawrence College
Bronxville, New York

William Van Til
Chairman
Department of Secondary Education
New York University
New York, New York

J. Russell Wiggins
Editor
Washington Post
Washington, D.C.

Howard Wilson
Dean
School of Education
University of California
Los Angeles, California

Dale Wolfle
Executive Officer
American Association for the Advancement of Science
Washington, D.C.

OTHERS WHO COMMENTED UPON MANUSCRIPT

Chadwick F. Alger
Visiting Professor of United Nations Affairs
New York University
New York, New York

George E. Arnstein
Associate Director
Project on the Educational Implications of Automation
National Education Assn.
Washington, D.C.

W. Donald Bowles
Chairman
Department of Economics
American University
Washington, D.C.

Mary Jean Bowman
Associate Professor of Economics
University of Chicago
Chicago, Illinois

Lloyd and Elaine Cook
Union, Washington

Henry Ehlers
Professor of Philosophy
University of Minnesota
Duluth, Minnesota

J. Edwin Foster
Executive Director
Educational Media Council
New York, New York

Ralph H. Gabriel
Sterling Professor of History Emeritus, Yale University
Professor of American Civilization, American University
Washington, D.C.

Ralph Gakenheim
Assistant Professor of Urban Planning
University of North Carolina
Chapel Hill, North Carolina

George Gerbner
Associate Professor of Communications
Institute of Communications Research
University of Illinois
Urbana, Illinois

Sebastian de Grazia
Professor of Political Science
Eagleton Institute of Politics
Rutgers University
New Brunswick, New Jersey

Anna L. Hyer
Executive Secretary
Department of Audiovisual Instruction
National Education Assn.
Washington, D.C.

Dorris M. Lee
Professor of Education
Portland State College
Portland, Oregon

Meno Lovenstein
Professor of Economics
Ohio State University
Columbus, Ohio

Glen W. Miller
Microbiologist
Medical Research Veterans Hospital
Washington, D.C.

Peggy J. Miller
Washington, D.C.

Hans J. Morgenthau
Director
Center for the Study of American Foreign Policy
University of Chicago
Chicago, Illinois

Gardner Murphy
Director of Research
Menninger Foundation
Topeka, Kansas

Charles B. Nam
Educational Analyst
Population Division
Bureau of the Census
U.S. Dept. of Commerce
Washington, D.C.

Wilbur Schramm
Director
Institute for Communication Research
Stanford University
Stanford, California

Daniel Schreiber
Director
Project on School Dropouts
National Education Assn.
Washington, D.C.

Shinkichi Shimabukuro
Assistant Professor
Department of Graduate Programs in Education
Northern Illinois University
DeKalb, Illinois

Dezo V. Silaghi
Principal
William H. Peck School
Detroit, Michigan

Robert C. Snider
Assistant Executive Secretary
Department of Audiovisual Instruction
National Education Assn.
Washington, D.C.

Conrad Taeuber
Assistant Director
Bureau of the Census
U.S. Dept. of Commerce
Washington, D.C.

Vladimir Toumanoff
Research Analyst
Office of Research and Analysis for Sino-Soviet Bloc
U.S. Department of State
Washington, D.C.

J. Lloyd Trump
Associate Executive Secretary
National Association of Secondary-School Principals
Washington, D.C.
A. W. VanderMeer
Dean
College of Education
Pennsylvania State University
University Park, Pennsylvania

William Van Til
Chairman
Department of Secondary Education
New York University
New York, New York

Marcellus B. Winston
Assistant Director
Project on School Dropouts
National Education Assn.
Washington, D.C.

Dale Wolfle
Executive Officer
American Association for the Advancement of Science
Washington, D.C.

Helen Wood
Manpower Specialist
Office of the Secretary
U.S. Department of Labor
Washington, D.C.

PARTICIPANTS IN DISCIPLINES SEMINAR

Ralph W. Tyler, *Chairman*
Director
Center for Advanced Study in the Behavioral Sciences

George B. Carson
Director
Service Center for Teachers
American Historical Association

Stanley Chapple
Director
School of Music
University of Washington

Lee J. Cronbach
Professor of Education Psychology
University of Illinois

David Easton
Professor of Political Science
University of Chicago

Gilbert C. Finlay
Professor of Education
University of Illinois

Alfred B. Garrett
Chairman
Department of Chemistry
Ohio State University

George Gerbner
Institute of Communications Research
University of Illinois

Preston E. James
Chairman
Department of Geography
Syracuse University Graduate School

Albert H. Marckwardt
Acting Director
English Language Institute
University of Michigan

William Riley Parker
Distinguished Service Professor of English
Indiana University

Philip H. Phenix
Professor of Education
Teachers College
Columbia University

G. Baley Price
Executive Secretary
Conference Board of the Mathematical Sciences
American Association for the Advancement of Science

I. James Quillen
Dean
School of Education
Stanford University

B. Othanel Smith
Professor of Education
University of Illinois

Joseph J. Schwab
Professor of Education, and
William Rainey Harper
Professor of Biology
University of Chicago

Lawrence Senesh
Professor of Economic Education
Purdue University

Gresham M. Sykes
Professor of Sociology
Dartmouth College

Frederick J. Whiteman
Associate Dean
The Art School
Pratt Institute

PARTICIPANT-OBSERVERS IN DISCIPLINES SEMINAR

Melvin W. Barnes
Arno A. Bellack
Howard R. Boozer
Sarah C. Caldwell
Philip J. Conley
Marion Cranmore
Howard H. Cummings
George W. Denemark
Dorothy M. Fraser
John I. Goodlad
Paul R. Hanna
William C. Hartshorn
Robert E. Henze
Frederick H. Jackson
J. Boyer Jarvis
Philip Lambert
Rose Lammel
John R. Mayor
Willard C. Olson
Thomas G. Pullen, Jr.
I. James Quillen
Henry W. Riecken
Robert M. Rosenzweig
Boyd C. Shafer
Robert L. Silber
B. Othanel Smith
Mortimer Smith
John M. Stephens
Florence Stratemeyer
Fred R. Thompson
Gordon B. Turner
Richard H. Wilson
F. L. Wormald

EXECUTIVE SECRETARIES OF NEA DEPARTMENTS

Department	Executive Secretary
American Association for Health, Physical Education, and Recreation	Carl A. Troester, Jr.
American Association of Colleges for Teacher Education	Edward C. Pomeroy
American Association of School Administrators	Finis E. Engleman
American Association of School Librarians	Dorothy A. McGinniss
American Driver and Safety Education Association	Norman Key (NEA Staff Liaison)
American Educational Research Association	J. Raymond Gerberich
American Industrial Arts Association	Kenneth E. Dawson
Association for Higher Education	G. Kerry Smith
Association for Supervision and Curriculum Development	Margaret Gill
Audiovisual Instruction	Anna L. Hyer
Classroom Teachers	Margaret Stevenson
Council for Exceptional Children	William C. Geer
Elementary-Kindergarten-Nursery Education	Ethel Thompson (NEA Staff Liaison)
Elementary School Principals	Robert W. Eaves
Foreign Languages	Frederick D. Eddy
Home Economics	N. Katherine Schlup (NEA Staff Liaison)
Music Educators National Conference	Vanett Lawler
National Art Education Association	Charles M. Dorn
National Association of Educational Secretaries	Mary Koehler
National Association of Journalism Directors	Lawrence G. Derthick (NEA Headquarters Contact)

Department	**Executive Secretary**
National Association of Public School Adult Educators	Robert A. Luke
National Association of Secondary-School Principals	Ellsworth Tompkins
National Association of Women Deans and Counselors	Barbara Catton
National Business Education Association	Hollis P. Guy (Executive Director)
National Council for the Social Studies	Merrill F. Hartshorn
National Council of Administrative Women in Education	Lois M. Clark (NEA Staff Liaison)
National Council of Teachers of Mathematics	James D. Gates (Acting Executive Secretary)
National Retired Teachers Association	Newell Walters (NEA Staff Liaison)
National School Public Relations Association	Roy K. Wilson (NEA Staff Liaison)
National Science Teachers Association	Robert H. Carleton
Rural Education	Robert M. Isenberg
Speech Association of America	Lawrence G. Derthick (NEA Headquarters Contact)
Vocational Education	Lawrence G. Derthick (NEA Headquarters Contact)

NEA COMMITTEES, COMMISSIONS, AND DIVISIONS RELATED TO THE PROJECT ON INSTRUCTION

NEA Journal	Mildred S. Fenner Editor
Press, Radio, and Television Relations	Roy K. Wilson Director
Publications	Sidney Dorros Director
Research	Sam M. Lambert Director

Educational Policies Commission	James E. Russell Secretary
Safety Education	Norman Key Executive Secretary
Teacher Education and Professional Standards	Don Davies Executive Secretary
Student NEA	Richard M. Carrigan Director
Future Teachers of America	Wilda Faust Director
Citizenship	Lucile Ellison Secretary
International Relations	Paul E. Smith Secretary

SPECIAL PROJECTS RELATED TO THE PROJECT ON INSTRUCTION

Academically Talented	Charles E. Bish Director
Educational Implications of Automation	Virgil M. Rogers Director
English Composition Laboratory	Arno Jewett Director
School Dropouts	Daniel Schreiber Director
Technological Development	James D. Finn Principal Investigator
Urban Project	Allan M. West Special Assistant to the NEA Executive Secretary

NEA PUBLICATIONS DIVISION PERSONNEL WHO ASSISTED IN PUBLICATION OF THIS VOLUME

Barbara Dickinson	Editor
Robert W. O'Leary	Book Designer
Kathleen Kelly	Editorial Assistant
Walter Stinchcomb	Chart Designer

APPENDIX D / *Reports of the NEA Project on Instruction*

MAJOR REPORTS

Schools for the Sixties: A Report of the NEA Project on Instruction. New York: McGraw-Hill Book Co., 1963. 146 pp.

Education in a Changing Society. Washington, D.C.: National Education Association, 1963. 166 pp. $1.75.

Deciding What To Teach. Washington, D.C.: National Education Association, 1963. 264 pp. $2.25.

Planning and Organizing for Teaching. Washington, D.C.: National Education Association, 1963. 190 pp. $2.

AUXILIARY REPORTS

The Scholars Look at the Schools: A Report of the Disciplines Seminar. Washington, D.C.: National Education Association, 1962. 64 pp. $1.50.

The Principals Look at the Schools: A Status Study of Selected Instructional Practices. Washington, D.C.: the Association, 1962. 76 pp. $1.50.

Current Curriculum Studies in Academic Subjects. (Prepared by Dorothy M. Fraser.) Washington, D.C.: National Education Association, 1962. 101 pp. $2.

ARTICLES IN PERIODICALS

Alexander, William M. "Assessing Curriculum Proposals." *Teachers College Record* 63: 286-93; January 1962.

Barnes, Melvin W. "Developments in Instruction." *Educational Leadership* 20: 261-65; January 1963.

Fraser, Dorothy M. "What Content and When?" *National Elementary Principal* 42: 13-19; September 1962.

Goodlad, John I. "Toward Improved School Organization." *Elementary School Organization.* Fortieth Yearbook. Washington, D.C.: Department of Elementary School Principals, National Education Association, 1961. Chapter 4, pp. 60-127.

Hanna, Paul R. "Curriculum and Instruction." *NEA Journal* 52: 52-54; January 1963.

Havighurst, Robert J., and Alexander, William M. "Bases for Curriculum Decisions." *National Elementary Principal* 42: 8-12; September 1962.

Miller, Richard I. "Teaching About Communism in the Public Schools." *Journal of Secondary Education* 38: 198-210; April 1963.

Miller, Richard I. "Curriculum Frontiers in the 60's." *Illinois School Board Journal* 30: 17-18, 21, 25; March-April 1963.

Miller, Richard I. "Teaching About Communism." *Saturday Review* 46: 62-64, 76-78; March 23, 1963.

Miller, Richard I. "Science and Values." *Science Teacher* 29: 5; December 1962.

Miller, Richard I. "Seminar on the Disciplines." *Science Teacher* 28: 31, 32, 35-37; October 1961.

Pullen, Thomas G., and Fraser, Dorothy M. "What To Teach?" *NEA Journal* 51: 34-36; October 1962.

Rehage, Kenneth, and Goodlad, John I. "Unscrambling the Vocabulary of School Organization." *NEA Journal* 51: 34-36; November 1962.

Sand, Ole. "Six Basic Issues in Determining What To Teach." *Chicago Schools Journal* 43: 170-77; January 1962.

Sand, Ole. "The Instructional Program of the Public Schools." *Georgia Education Journal* 55: 8-10; October 1961.

Sand, Ole. "The Profession Speaks: NEA Project on Instruction." *NEA Journal* 50: 53-54; May 1961.

Sand, Ole. "Reports on Some National Studies in Education: The NEA Project on Instruction." *Bulletin of the National Association of Secondary-School Principals* 47: 163-170; April 1963.

Sand, Ole. "Can We Prepare Children for Tomorrow's World?" *Instructor* 71: 6; May 1962.

Sand, Ole. "The Instructional Program of the Public Schools." *Leadership Challenge of the 60's.* Washington, D.C.: National Association of State Teachers Associations, 1961.

Sand, Ole. "Current Trends in Curriculum Planning—Their Implications for Music and the other Arts." *Music Educators Journal* 50: September 1963.

Sand, Ole, and Miller, Richard I. "New Goals in Instruction." *California Teachers Association Journal* 59: 25-28; May 1963.

Sand, Ole, and Miller, Richard I. "Curricular Innovations." *Bulletin of the National Association of Secondary-School Principals* 47: 120-23; May 1963.

Sand, Ole, and Miller, Richard I. "Perspective on National Studies in the Disciplines." *Journal of Secondary Education* 38: 27-33; January 1963.

Tyler, Ralph W., and Miller, Richard I. "Social Forces and Trends." *NEA Journal* 51: 26-28; September 1962.